Result No.

Match

Length

DB

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Description A70152 Sequence

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Seneric Control of FRUIT RIPENING

Patent: WO 9811228-A 13 19-MAR-1998;

SEYMOUR GRAHAM BARRON (GB) unidentified Sequence 13 from Pat A70152 A70152.1 GI:4774567 unclassified. unidentified. A70152 100079 61712 81662 127202 1633 90142 823 806 bp from Patent W09811228. 1408 1493 1494 1462 1462 1708 1525 1525 1555 687 5368 1772 7772 7772 7794 A83008 AY087724 AY066033 AY065034 AY054200 A83005 AY058197 A83006 A83013 T1G11 AB017061 AB008265 A83009 AX005936 ZEPCLY AF339025 AY050404 AY050795 AY086099 AF206319 A82999 MAPEL ATAC016827 A83003 OSJN00272 AY085026 MAZ99977 ALIGNMENTS DNA

A83010 Sequence 17
Z99970 Musa acumin
A83005 Sequence 12
AY058197 Arabidops
A83006 Sequence 13
A83013 Sequence 20
A83008 Sequence 20
A83008 Sequence 15
AY087724 Arabidops
AY066033 Arabidops

A70153 Sequence 14 Z99977 Musa acumin AF339024 Fragaria

A83009 Sequence 16 AX005936 Sequence Y09541 Z.elegans m AF339025 Fragaria AC002376 Sequence AB017061 Arabidops AB008265 Arabidops

AY065034 Arabidops AY054200 Arabidops

AB3011 Sequence 18
AB3004 Sequence 11
AB3001 Sequence 21
AR3001 Sequence 21
AR3015 Sequence 16
AR3015 Sequence 16
AR3010 Sequence 7
AB3012 Sequence 7
AB3012 Sequence 10
AR3013 Sequence 10
AR3003 Sequence 10
UG3550 Fragaria x
AY086099 Arabidops
AR0016827 Arabidops
AR016827 Arabidops
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/organism="unidentified"
/db_xref="taxon:32644"
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Direct Submission
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University of Singapore, 10 Kent F
Location/Qualifiers
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Ong, C.K., Pua, E.C. and Liu, P.
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GLVDAVMGSTAITVSNNYFTHHEEVMLLGHTDSYARDSINQVTIAFNHFGEGLIQRMP
RCRHGYFHVVNNDYTHHEEMYALGGSANPTINSGANFTRPSTOTOGST
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Seymour,G.B. and Bird,C.R.
GENETIC CONTROL OF FRUIT RIPENING
PATENT: WO 9853085-A 18 26-NOV-1998;
SEYMOUR GRAHAM BARRON (GB); ZENECA LTD
LOCATION/QUALIFIERS
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                                                                                                                                                                                                                                                                                                     unidentified unidentified
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                                          CTGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAAT
                                                                                                              TGTTCTCCTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCG
                                                                                      GCAATGACGGCGGGTTTAAGATGGATTCCTCCTCTTCTTCTTCTTCTTCTGGGCTTCCTG
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                                                                            GCAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTG
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                                                                                                                                                   Conservative
                                                                                                                                                                                            /organism="unidentified"
/db_xref="taxon:32644"
/clone="U-113"
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Seymour,G.B. and Bird,C.R.
GENETIC CONTROL OF FRUIT RIPENING
PATENT: WO 9853085-A 11 26-NOV-1998;
SEYMOUR GRAHAM BARRON (GB); ZENECA L
LOCATION/Qualifiers
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Sequence 11 from Patent W09853085
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CTGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAAT
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/db_xref="taxon:32644"
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GCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTT
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Pred. No. 3.7e-144;
0; Mismatches 61;
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Sequence
A83001
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GENETIC CONTROL OF FRUIT RIPENING PATENT: WO 9853085-A 8 26-NOV-1998; SEYMOUR GRAHAM BARRON (GB); ZENECA
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/db_xref="taxon:32644"
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Pred. No. 1.6e-143;
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Submitted (17-OCT-1997) R. Medina-Suarez, Horticulture Research International, Wellesbourne, Warwick, CV35 9EF, UNITED KINGDOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 73.1%;
Similarity 88.7%;
05; Conservative
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                                                                        TAAACNCNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGCTTTAANACNA 659
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NTCCCCAACNTCTTCCTTCCNTNGCCTCCNCT--CCCCAATGCAACCCNCCGGGAATTCCT 777
                                       TCGATGGACNCNGTGTCCTCGTCCACATTGCCCAATGGCGCCTGCNTCACCANCCAATTTC
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                       TCGATGGACCCG--TGTCACGTCCACATTGCCAATGGCGCCTGCTTCACCATCCAA-TTA
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/cultivar="Grand Nain"
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/tissue_type="fruit peel"
/note="Musa AAA group"
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Pred. No. 1.6e-143;
0; Mismatches 77; Indels 13
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TCACCHACNTCACTGGCCTCACNTCCACAAATGCNACCCACCAGAATWCCTCCACAAATGCCACCCACCCACACTCCTTT 792	Qy 540 ccccc	Db 496 CCGCG	Qy 480 ccccc	OY 420 TGTCA                 Db 436 TGTCA	Qy 361 CTGTC         Db 376 CTGTC	Qy 301 GTTGC        Db 316 GTTGC	Qy 241 TCCTT           Db 256 TCCTT	Qy 181 GGCGG 	Qy 121 CTGGT        Db 136 CTGGT	Qy 61 GCAAT        Db 76 GCAAT	Qy 1 TGTTC        Db 16 TGTTC	Query Match Best Local Similarit Matches 653; Conse	QY 778 NGTCCCCNCTC  RESULT 7 A83014 LOCUS A8	Db 718 ATCAC
, , , , , , , , , , , , , , , , , , ,	CGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTT	-TTGTNCNTT	TTTGTTCGTT	ACGCAACGCNAT	CTGTCGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGA-CCCTGATTGGC 	GTTGCTTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTGGTTAT 	TCCTTGGAAGAGAGGGCTGTAACCCGGGCAGCAGAAGCCGCAGTCGACGACCCCGAGGAG 	;GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCACCACCGCCGATGCT 	CTGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAAT 	GCAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTG 	TGTTCTCTCCTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCG 	71.0%; Score 572.2; DB 6; Length 727; y 90.9%; Pred. No. 3.5e-139; rvative 0; Mismatches 57; Indels 8	CCCT 792	ATCACCAACNTCATCNTCCATGGCCTCCACNTCCACAAATGCNACCCACCNGGAATNCCT

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Seymour, G.B., Bird, C.R. and Medina-Suarez, R.
GENETIC CONTROL OF FRUIT RIPENING
PATENT: WO 9811228-A 16 19-MAR-1998;
SEYMOUR GRAHAM BARRON (GB)
LOCATION/QUALIFIERS
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                                        TCAACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGG-ACGCAACGCNATANGTGGC
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/db_xref="taxon:32644"
/clone="U-U89"
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Seymour,G.B., Bird,C.R. and Medina-Suarez,R.
GENETIC CONTROL OF FRUIT RIPENING
PATENT: WO 9811228-A 18 19-MAR-1998;
SEYMOUR GRAHAM BARRON (GB)
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                                                                TTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTTGGTTATCTGTC 365
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         GTGCGGTTCAGGCAACCCGATCGACNACTGCTGGCGGTGCGACCCCGATTGGCATNTCAA
                   GTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAA 425
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                                                     TTCGACGGTCCTGACGACCATAATCAACAGCACGGCTCGAANATCTCTTGGTTATCTGTC
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                                                                                                                                                                                                                                                                                                                                                                              /organism="unidentified"
/db_xref="taxon:32644"
/clone="U-U117"
201 c 197 g 15
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Pred. No. 1.1e-129;
); Mismatches 62;
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Matches
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SEYMOUR
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A83000
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                                                                                                                                                                                                        GCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTTGGGCTTCCTGCTGGTTTTG
                      GAGAGGCTGTAACCCGGGCAGCAGAAGCCGCAGTCGACGACCCCCGAGGAGGTTGCTTCG
                                                                                                                           TCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCACCGCCGATGCTTCCTTGGAA
                                                                                                                                                                       AACGGAGGTCGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCCAGGAATGGCGAGCA
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                                                                     GACAGGGCTGTNACCAGGGCAGCAGAAGCCGCAGTCNATGACCCCGAGGAGGTTGCTTCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGACNCNGTGTCCTCGTCCACATTGCC 691
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGG-ANTTGTNCGTTGTGACAGACTCCGGGGGACGATGATCCCCCNTGAATCCTCCCCCG
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  GGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAG-
                                                                                                                  TCNCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTTCCTTGGAA
                                                                                                                                                              AACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAATGGCGGAGCA
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ymour,G.B. and Bird,C.R.
ymour,G.B. and Bird,C.R.
NETIC CONTROL OF FRUIT RIPENING
tent: WO 9853085-A 7 26-NOV-1998;
YMOUR GRAHAM BARRON (GB); ZENECA
LOCATION/Qualifiers
                                                                                                                                                                                                                                                                                                                                                             146
                                                                                                                                                                                                                                                                                                     Conservative
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190 c
                                                                                                                                                                                                                                                                                                                                                                                  /organism="unidentified"
/db_xref="taxon:32644"
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                                                                                                                                                                                                                                                                                                              Score 510.8;
Pred. No. 4.4
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WO9853085
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Best Local :
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                                                                                                                                                                                   62 CAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTGC
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Sequence
A83012
                                                                                                                                                                                                                                                                                                                                                                                           GENETIC CONTROL OF FRUIT RIPENING PATENT: WO 9853085-A 19 26-NOV-1998; SEYMOUR GRAHAM BARRON (GB); ZENECA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 706)
Seymour, G.B. and Bird, C.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               unidentified
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                                                                                                                                                                                                                                                                             Similarity
TTGCTTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTGGTTATC
                                                                              GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTTGGAAGAGAGGGCTGTAACCAGGGCAGCAGAAGCCGCNNTCNACTACCCCGAGGAGG
                                                CCTTGGAAGAGAGGGCTGTAACCCGGGCAGCAGAAGCCGCAGTCGACGACCCCGAGGAGG
                                                                                                                          TGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGGTCCTCTGGCTCGAGGAATG
                                                                                                                                                                        CAATGACGGCGGGTTTAAGATGGATTCCTCCTCTTGCTTCTTCTTCTTGGGCTTCCTGC
                                                                                                                                                                                                                    GTTCTCTCCTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGAAGAGGGGGGG
                                                                                                                                                                                                                               GTTCTCTCCTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCGG
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                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                        /organism="unidentified"
./db_xref="taxon:32644"
./clone="U-114"
192 c 195 g 15
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                                                                                                                                                                                                                                                                          61.6%;
90.6%;
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                                                                                                                                                                                                                                                                          Score 496.8;
Pred. No. 2.1
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W09853085
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                                                                                                                                                                                                                                                                                                                         153
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2.1e-119;
nes 52;
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PAT

21-JAN-2000

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542 548

660 667 600 484

488

424

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Gaps

126 121 66 61

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301 246 241 186 181

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RESULT 12
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NOTE: This is a PHASE2 sequence. Gaps are shown by nnnnn. Genes were identified by a combination of several methods: Gene prediction programs including Figenesh (http://www.softberry.com/), genscan (http://CR-081.mit.edu/GENSCAN.html), GeneMarkHMM (http://genemark.biology.gatech.edu/GeneMark/), tRNAscan-SE (Sean Eddy, http://genome.wustl.edu/eddy/tRNAscan-SE/), searches of the complete sequence against NCBI none redundant protein database (nr) (ftp://ncbi.nlm.nih.gov/Dlast/db) and the EST database at NCGR. * NOTE: This is a 'working draft' sequence. It currently * consists of 4 contigs. Gaps between the contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Han,B., Feng,Q., Huang,Y.C., Li,Y., Zhu,J.J., Zhao,Q., Hu,X.,
Liu,Y.L., Mu,J., Yu,Z., Chen,L., Fan,D.L., Meng,Q.J., Zhang,L.,
Lu,Y.O., Yu,S.L., Liu,X.H., Lu,T.T., Zhang,Y.J., Lu,Y., Li,C.,
Li,T., Zhang,Y., Hu,H., Jia,P.X., Qian,Y.M., Ying,K., Zhou,B.,
Chen,Z.H., Hao,P., Zhang,L., Wu,M., Zhang,R.Q., Guan,J.P., Fu,G.,
Mang,S.Y., Ren,S.X., Lv,G., Lin,W., Gu,W.Q., Zhu,G.F., Tu,Y.F.,
Jia,J., Yin,H.F., Zhang,Y., Cai,Z., Chen,J., Kang,H., Chen,X.Y.,
Shao,C.Y., Sun,Y., Hu,Q.P., Zhang,X.L., Zhang,W., Wang,L.J.,
Shao,C.Y., Sheng,H.H., Gu,J.L., Chen,S.T., Ni,L., Zhu,F.H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OSJN00272 127202 bp
Oryza sativa chromosome 4 clone
PROGRESS ***, 4 ordered pieces.
                                                                                                                                                                                                                                                                             Oryza sativa japonica (nipponbare) genomic
clone: OSJNBa0095E20.
On Jul 12, 2002 this sequence version repla
                                                                                                                                                                                                                                                                                                                                                       Submitted (27-JUN-2002) Han Bin, National Center for Gene Research, Chinese Academy of sciences, 500# Cao Bao Road, Shanghai 200233, CHINA. E-mail enquiries: bhan@ncgr.ac.cn. Clone requests:
                                                                                                                                                                                                                                        Web site: http://www.ncgr.ac.cn
----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oryza sativa
                                                                                                                                                                                                                    Assembly program: phrap
                                                                                                                                                                                                                                                                                                                                     bhan@ncgr.ac.cn
                                                                                                                                                                                                                                                                                                                                                                                                                                          Hong, G.F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ehrhartoideae;
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                                                          AY085026 163
Arabidopsis thaliana clone
AY085026
AY085026.1 GI:21403736
FLI_CDNA.
                      Arabidopsis
                                        thale cress
    Eukaryota; Viridiplantae; Streptophyta;
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51989 GGCTCGCCGACTGCGGCATCGGCCTTCGGCCGCAACGCCATCGGCGGCCGCGAC-GGCAAG 51931
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    374 CAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAGAAAAA 433
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                                                                                                                                                                                                                                                                                                                                                              AGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAAT 493
                                                                                                                                                        CATCCATGGCCTGCACATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGTACGCCGTCATCC----GCGACGAGCCGCTGTGGATCGTCTTCAAGCGCGACATGG
                                                                                                                                                                                                        CTTCCNTNGCCTCCNCTCCC
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                                                                                                                                                                                                                                                                                           GTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCNTCCCCAACNTCTT
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This sequence will be replaced
by the finished sequence as soon as it is available accession number will be preserved.

1 82614: contig of 82614 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCTACGTGGTCACCGACCCCAGCGACGACGA-CGCGGTGAACCCCAAGAAGGGCACGCT
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82815 84736: contig of 1922 bp in length

84737 84936: gap of 200 bp

84937 93650: contig of 8714 bp in length

93651 93850: gap of 200 bp

93851 127202: contig of 33352 bp in length
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/sub_species="japonica"
/db_xref="taxon:4530"
/chromosome="4"
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/organism="Oryza sativa"
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25541 c 26047 g 37909
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Embryophyta;

Tracheophyta;

complete sequence

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               available to TIGR and Genbank. The following quality assessment of this set was done by comparison with known proteins: two percent of the clones are estimated to be 5'-truncated; less than one percent are 3'-truncated; approximately two percent represent alternative splice variants, including unspliced introns and spliced exons; one percent may contain premature stop codons; five percent may have frame shifts in a coding region. A sequence is considered to be 5'-truncated if it lacks the translation initiation start (ATG). A sequence is considered to be 3'-truncated if it lacks the C-terminal end of the encoded protein. Please note that these cDNA sequences are derived from the Ws or LAer ecotypes and therefore may contain polymorphisms when compared to sequencing of the full-length clones. Ceres, Inc. carried out the clustering of the full-length clones. Ceres, Inc. carried out the clustering of the
  454
                                                                                                            394
                                                                                                                                                                                                                         334
                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                      304;
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This clone sequence is one of 5,000 Ceres full-length CDNAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feldmann, K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Brover, V., Troukhan, M., Alexandrov, N., Lu, Y.-P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Haas, B.J., Volfovsky, N., Town, C.D., Troukhan, M., Alexandrov, N., Feldmann, K.A., Flavell, R.B., White, O. and Salzberg, S.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                         GAAGCCGCAGTCGACGACCCCGAGGAGGTTGCTTCGACGGTCCTGATGACCATAATCAAC
                                                                                                                                                                                                                      AGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCGATCGACGAC
                                                                                                                                                                                                                                                                               GAACATGCAGTTGAGAACCCAGATGAAGTCGCTGCCATGGTGGACATGAGCATTCGAAAC
GGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGTTCGTTGTGACAGACTC
                                                                                                         TGCTGGCGGTGCGACCCTGATTGGCATGTCAACAGAAAAAAGCTCGCTGACTGCGGCATT
                                                      TGCTGGCGTTGCGACCGCAAATGGCAGCTCCGTCGCAAACGTTTAGCCGATTGCTCAATC
                                                                                                                                                                   AGCACAGAGCGGAGAAGATTAGGTTACTTCTCCTGCGCCACCGGCAACCCAATCGACGAT
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/protein_id="AAM61584.1"
/protein_id="AAM61584.1"
/db_xref=="Gi:21537243"
/translation="MAVTKLILFASALLLTTLFIGVNASRSNETWHEHAVENPDEVAA
/translation="MAVTKLILFASALLLTTLFIGVNASRSNETWHEHAVENPDEVAA
MVDMSIRNSTERRIGYESCAFGON IDEVENTIEKENDLEKELADCSIGFCRNAIGGR
DGRFYVYDDGODDDYWNJEGTIHAVIQDEPUMIIFKROMVITLKQBLIMNSFKTIB
GRGVNVHIANGACLTIQYVTNIIVHGIHVHDCKPTGNAMVRSSPSHYGFRSMADGDAI
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375 c 344 g 480
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VMQVTIAYNHFGEGLIQRMPRCRHGYFHVVNNDYTHWEMYAIGGSAGPTINSQGNRFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Arabidopsis thaliana"
/db_xref="taxon:3702"
/clone="124816"
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Pred. No. 1.5e-33;
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from arthur eph.orm. 1907). Genefinder (Phill Green, University of Washington), Genscan (Chris Burge; http://gnomic.stanford.edu/-chris/GENSCANW.html), and NetPlantGene (http://www.cbs.dtu.dk/netpgene/cbsnetpgene.html), searches of the complete sequence against a peptide database and the Arabidopsis EST database at TIGR (http://www.tigr.org/tdb/at/at.html). Annotated genes are named to indicate the level of evidence for their annotation. Genes with similarity to other proteins are named affer the database hits. Genes without significant peptide similarity but with EST similarity are named as 'unknown' proteins. Genes without protein or EST similarity, that are predicted by more than two gene prediction programs over most of their length are annotated as 'nypothetical' proteins. Genes encoding tRNAs are predicted by tRNAscan-SE (Sean Eddy, http://genome.wustl.edu/eddy/tRNAscan-SE/). Simple repeats are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         694 TGGCGCCTGCNTCACCANCCAATTTCNTCCCCAACNTCTTCTTCCNTNGCCTCCNCTCC 752
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The orientation of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Gene Genes were identified by a combination of three methods: Genes were identified by a combination of three methods: Genes were identified by a combination of the combinatio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lin,X., Kaul,S., Town,C.D., Benito,M.-I., Creasy,T.H., Haas,B.,
Wu,D., Ronning,C.M., Koo,H., Fujii,C.Y., Utterback,T.R.,
Barnstead,M.E., Bowman,C.L., White,O., Nierman,W.C. and Fraser,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    molecular marker mi357.
The orientation of the sequence is from SP6 to T7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (08-DEC-1999) The Institute for Genomic Research, 9712 Medical Center Dr. Rockville, MD 20850, USA, xlinetigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lin, X. and Kaul, S. Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Address all correspondence to:at@tigr.org
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1 (bases 1 to 90142)
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chromosome III
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LBAC F17A9
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/note="predicted by genscan+" complement(join(<8949. 9029,9939. .10064,10135. 10366. .10476,10591. .10713,10802. .10933,11019. 11459. .11753,11827. .12072,12147. .12197,12231. 12373. .12472,12513. .13458,13560. .13658,13922.
                                                                                                                                                     complement(8791. .8844)
/rpt_family="POLY_A"
complement(<8949. .>14779)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement (6940...7830)
/gene="F17A9.2"
complement ()oin (6940...7317,7501.
/gene="F17A9.2"
complement ()oin (7024...7317,7501.
/gene="F17A9.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              join(1019.
1809. .187
                                                                                                                                                                                                                                                              /rpt_family="(CAT)n"
8609. .8666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KDIIEMTFFPVVNEACRVFAEGIAVKAADLDIAGIMGMGFPPYRGGIMFWADSIGSKY
IYSRLDEWSKAYGEFFKPCAFLAERGSKGVLLSAPVKQASSRL"
6703. 6738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DKLPPLGEAREILTFAKAQTLKRAPNMKHPLMCLDAIEVGIVSGPRAGLEKEAEVASQ
VVKLDTTKGLIHVFFSQRGTAKVPGVTDRGLVPRKIKKVAIIGGGLMGSGIATALILS
NYPVILKEVNEKFLEAGIGRVKANLQSRVRKGSMSQEKFEKTMSLLKGSLDYESFRDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FSPAHIMPLLEIVRTNHTSAQVIVDLLDVGKKIKKTPVVVGNCTGFAVNIMFFPYTQA
AMFLVECGADPYLIDRAISKFGMPMGPFRLCDLVGFGVAIATATQFIENFSERTYKSM
IIPLMQEDKRAGEATRKGFYLYDDKRKAKPDPELKKYIEKARSISGVKLDPKLANLSE
                                                                                                                                                                                                                                                                                                                                                                   REVVEGVKDLGEEEERWLGLGTGKEEVTSLPSFSWRHKAQIPPGFFV"
COMplement(7266. .7306)
                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation="MPPHLTISLIASAASPPPPLLMTLVASLCDSILLKAQSPNPLEI
LSKKSPEKLLLPQPTDLDLNTFLPNDEPPPPPIPFVGVSETTLLGLSSSSSTITSMPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DMVIEAVIENISLKQQIFADLEKYCPQHCILASNTSTIDLNKIGERTKSQDRIVGAHF
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KPSVAAIDGLALGGGLELAMACHARISAPAAQLGLPELQLGVIPGFGGTQRLPRLVGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="fatty acid r
/protein_id="AAF26990
/db_xref="GI:6728993"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="identical to fatty acid multifunctional protein (AtMFP2) GB:AF123254 [Arabidopsis thaliana] (fatty acid beta-oxidation)"
                                                                                                                                                                                                                                                                                                                                                                                                                   PPPTLMEEIRFAEEDEEEEEEDEEEAASMFFFFLARRNGRLILLVESLPLLADERDRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="(GA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /protein_id="AAF26991.1"
/db_xref="GI:6728994"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="unknown protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   translation="MDSRTKGKTVMEVGGDGVAVITLINPPVNSLSFDVLYNLKSNYE/
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/cultivar="Columbia"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ocation/Qualifiers
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                                                                                                                                                                                                                                                                                                                                        _family="(GAA)n"
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                                                                                                                                                                                                                                      family-"(CAT)n"
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. 1876,1964. 2045,2248. 2303,2386. 2688,2790. 2876,

. 3179,3256. 3377,3477. 3640,3750. 4004,4085. 4206,

. 3199,4506. 4654,4751. 4889,5067. >5102)
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0.1"
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<17222. .1730/
/gene="T17A9.5"
                                                                        complement(join(17998..18060,18168..18240,18317.
18496..18615,18728..18820,18918..19016,19131..1
19313..19392,19496..20174,20331..20365))
/gene="F17A9.6"
                                                                                                                                                                                                        complement(join(<17998. .18060,18168. .18240,18317. 18496. .18615,18728. .18820,18918. .19016,19131. .1 19313. .19392,19496. .20174,20331. .>20365))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="F17A9.4"
16042. .16428
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                                                                                                                                                                                                                                                                                complement(<17998. .>20365)
/gene="F17A9.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="F17A9.5"
17222. .17377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALFLYLILFLLYYRFSIFGGDDGSDD"
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10366...10476,10591...1
11459...11753,11827...1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="MYQDRQGVVGGGGGGGSAPHGIILAVVVALVVLVPFFFIGDSGEA
|TDAIAELLSPVGLLLLPIILLLTIQFLSSERGSFVSAIFSTGEPESIHRVSGSPVGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /protein_id="AAF26993.1"
/db_xref="GI:6728996"
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                                                     'note="hypothetical protein"
                                                                                                                                                                                /gene="F17A9.6"
                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAF26994.1"
/db_xref="GI:6728997"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note="unknown protein"
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                                                                                                                                                                                                                                                                                                                                                                   translation="MIFDFLNFKTRKTFRLVIVGLYPKGSPSRNSRRPKTSLGPGGGL
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db_xref="GI:6728995"
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KDMLYSSSTYVEMSNIKDLRRNYEPOMSITAEKGSNIVAMGVVEDFIYLNRSSSANTL
QDCSLYFSSWYPEDVLYPTISSTQYII"
complement(15780. .15825)
/rpt_family-"(TAAA)n"
                                                                                                                                                                                         EISKGPNSLKYSACEVLLDEVAQFLHPGLELBERLLACICIYNFSSGKEMHQSGSGAV
TALIYHKGLLESGFSDGSIRVMNVNKKLATLLMOIKEHKSTYTCSSLSETGECVLSGS
ADKTIRVWQIVKGKLESGEVIKTKGSIRKLEAFGNMIFYITKGHKMKLLDLSSRISGSI
FKGKGVKSMVSAQGKIYIGCIDTSIQELIVANKREKEIKAPTRSWRLQNKPINSVVVY
                                                                                                                                                                                                                                                                                                                                                                                       WMNLQSLIKEVLĞNADEKYVSEVTMIYOMLNRKEĞFKYSMLKDVILDQLFTAISSSE
KTVIKASMTALTKIISVNRTALEEVKRKÇLNLSHLANALKQNVQBAAILIYLIKEŞFT
EIKSLELLPALVDVVASTSSSSSCYTTFIPSESYLTPPAASLMIIEVLLTAFBHANNH
HLAAISSPSVLCGLLDVAKSGNSGEFISLTRSIFISILEWLLLRISCKAKTKKKFALL
FNFFWRSSAIKILQQIKKEĞSFDIKGIPKLFAADILLQNALDSPEMKKYRNBATRA
LLDAVTYSEĞSMODLLSTEILANIGĞTYSWNGEPYTAMLMRRĞGLYSMKYRNBATRA
MUSDECLQDTĞIDĞMCCKIARRIIDTĞKATFCĞLQEĞLKSKNKSVSKACLIAIAMLSI
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LQMPALLDEQGTTTSGVPNTVLISFSYFYLSIVSYLQGDSLQSTLHFLQSVLVSPEIV
RTDIAPELCESIFFTPGVYKSDEEIREIARKYKYRATYYQVMSYGETHQPPRECIETP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRRQKEYGQEIFAANAHSVAEKLELSETCEEDYNAEPGKSTRVRCLNEFLNESQPDTR
EDIGTDTLANIFCVSQQQAHKEANKAYNEDTLANRSSSFIGNFNRSIFEIQAQQSKTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translation="MAYLSSSQSTFISCSENSSLDSILVSINVYILGVISDPEAWISL"
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al Similarity 63.5%;
277; Conservative
                                                                                     272;
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Seymour,G.B. and Bird,C.R.
GENETIC CONTROL OF FRUIT RIPENING
PATENT: WO 9853085-A 10 26-WOV-1998;
SEYMOUR GRAHAM BARRON (GB); ZENECA LTD
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 10 from Patent WO9853085 A83003
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                                                                                                                                                                                                                                                                                                                                          unidentified
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CGACGACTGCTGGCGGTGCGACCCCTGATTGGCATGTCAACAGAAAAAAGCTCGCTGACTG
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/translation="MSGSESVYRKRQPMDMDGYHKRSAGLNPCKHSGFSHSSRPMAPG
IYRYPEVKSSLRRQVHAPVRILNSGRDRSTRQGSGNVLGTFLTRNNDMMKRNALDSSL
                                                                                                                                                            /clone="U-51"
266 c :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New method of modulating fruit ripening or tissue sene characteristics of Musa plants - by introducing DNA se useful in processes for modifying plant/fruit ripening characteristics
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                                                                                                                                                                                                                                                                                                                                                                      14 other;
                                                                                                                                                                                                                                                                                                                              20;
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                                                                                                                                                                                                                                                                                        Gaps
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RESULT 3
AAV69450
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ID AAV69450
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AC AAV6
XX Bana
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    New method of modulating fruit ripening or tissue senescence characteristics of Musa plants - by introducing DNA sequences, useful in processes for modifying plant/fruit ripening characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                           Fruit ripening;
triploid; plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV69450
                                                                                                                                                                                                                                  20-MAY-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fruit ripening-related clone U-52 cDNA.
                                                                                                                                                                                         ZENECA
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                                                                                                                                                                                                                                                                                                                                                                                                                                           banana; modulator;
breeding; ss.
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
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hes 673;
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          TTCNTCCCCAACNTCTTCTTCCNT 740
                                           ACATCGATGGACCCGTGTTCCNCNTCCACATTGCCAATGGCGCCTGCTTCACCATCCNAT
                                                      CNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAAT
                                                                                      TAAACACNACATGGANATCACCCTCNAGGNAGGAACTCCTTTATGAAACNGCTTTTNACA
                                                                                                  TAAACNCNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGC---TTTAANA
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90.5%;
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                          modulate the fruit ripening or tissue senescence characteristics acuminata (banana) plants. The method provides a recombinant way
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fruit ripening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-MAR-1999
                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                   unaffected
                                                                            248
                                                                                                                        188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999-059745/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    acuminata
            361
                                                     301
                                                                                                                                            181
                                                                                                                                                                   128
                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                   705;
                                                                                                                                                                                                            8
                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                             Similarity
                              CTGTCGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCAT
                                                                                                 TCCTTGGAAGAGAGGGCTGTAACCCGGGCAGCAGCAGCCGCAGTCGACGACCCCGAGGAG
                                                                                                                                GGCGGAGCATCGCGGAGGAGCTTGAGAGAGGGCCTCCGCGAACGCGACCAGCGCCGATGCT
                                                                                                                                                                            CTGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGGGTCCTCTGGCTCGAGGAAT
                                                                                                                                                                                                                       GCAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTTCCTG
                                                                                                                                                                                                                                                                 TGTTCTCTCCTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGCCG
                                                                                                                                                                                                                                                                                                                                             793
                                                                            TCCTTGGAAGACAGGGCTGTAACCAGGGCAGCAGAAGCCGCAGTCGATGACCCCGAGGAG
                                                                                                                      GGCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCT
                                                                                                                                                                CTGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAAT
                                                                                                                                                                                                            GCAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTATGGGCTTCCTG
                                                                                                                                                                                                                                                       TGTTCTCCTCCATCACATCTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Medina-Suarez
                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                             BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ripening-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                 γď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97GB-0010370
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          breeding; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      banana; modulator;
                                                                                                                                                                                                                                                                                                                                             170
                                                                                                                                                                                                                                                                                                                                                                 conventional plant breeding
                                                                                                                                                                                                                                                                                                           73.1%;
88.7%;
                                                                                                                                                                                                                                                                                                                                            ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                      78pp;
                                                                                                                                                                                                                                                                                                                                             222 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RDJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                Score 588.8;
Pred. No. 2.8e
0; Mismatches
                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seymour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone U-22 cDNA
                                                                                                                                                                                                                                                                                                                                            215 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tissue senescence;
                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GB;
                                                                                                                                                                                                                                                                                               ; DB 20;
!.8e-165;
nes 77;
                                                                                                                                                                                                                                                                                                                                            T; 15 other;
                                                                                                                                                                                                                                                                                                                                                                techniques
                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    crop;
                                                                                                                                                                                                                                                                                                13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      plant;
                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                              of p
                                                                                                                                                                                                                                                                                                                                                                            nature
                                                                                                                                                                                                                                                                                                                                                                                                                      Musa
                                                                                                                                                                                                                                                                                                                                                                                                a
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                                                                                                                                                                187
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RESULT 5
AAV69460
ID AAV69460
ID AAV69460
AX AAV6
XX Bana
XX Frui
XX Erui
XX Usan
XX Erui
XX Usan
XX Erui
XX Usan
XX U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Banana fruit ripening-related clone U-139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV69460
                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ZENE )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9853085-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          triploid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV69460
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oid; plant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZENECA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAAACNCNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGCTTTAANACNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTT 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCGACGGGGAATTTGTTCGTTGTGACAGACTCCGGGGACNATGATCCCCGTGAATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCAACAG-AAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTCCCACTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NGTCCCCNCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAAACACGACATGGAAATCACCTCC--AGGAAGAACTCNTTATGAACNGCTTTAANACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCGGGGAACACTTANATACGCCGTCNTCC----ANGACGTGCCCCTCTGGATCACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGCGACGGGG-ANTTGTNCGTTGTGACAGACTCCGGGGACGATGATCCCGTGAATCCTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           LTD.
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breeding;
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                                                                                                                                                                                                                                                                                                                                                                                                         Seymour
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                                                                                                                                                                                                                                                                                                                                                                                                         GB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    plant;
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modulate the fruit ripening or tissue senescence characteristics of Mus acuminata (banana) plants. The method provides a recombinant way of modulating ripening/senescence characteristics of bananas, which are a globally important crop. In particular, the method can modulate such characteristics in the dessert banana, which due to its trivial and characteristics.

nature

Musa

New method of modulating fruit ripening or tissue sene characteristics of Musa plants - by introducing DNA se useful in processes for modifying plant/fruit ripening characteristics

senescence sequences

Claim

Page

30-31;

78pp;

English.

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genetically

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RESULT 6
AAV28658
AAV28658
AAV28658
AC AAV2
XX AAV2
XX 29-J
XX 29-J
XX 29-J
XX gene
XX Bana
KW gene
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XX Musa
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                                              Banana; ripening;
genetic control;
                                                                                 Ripening
                                                                                                                                 AAV28658
                                                                                                                                                        AAV28658
                         Musa acuminata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   İS
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hes 653;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTTCTCCTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCG
                                                                                 banana pulp cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTCGTGCGGTTCAGGCAACCCGATCGACTGCTGGCGGTGCGA-CCCTGATTGGCA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTGCTTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTGGTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                CTGGTTTTGAACGGAGGTCGGGGGGGGGGATTGGAAGCGAGGAGGTCCTCTGGCTCGAGGAAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                       TGTCAACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTTGGAAGAGGGGCTGTAACCAGGGCAGCAGAANCCGCNNTCGACGACCCCGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTTGGAAGAGAGGCTGTAACCCGGGCAGCAGACCCGCAGTCGACGACCCCGAGGAG
                                                                                                                                                                                                                                        TCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATT 717
                                                                                                                                                                                                                                                                                                                                     CGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                          TGTCAACAGAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGCCGCAACGCGATANGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTCGTGCGGTTCAGGCNACCCGATCGACGACTGCTGCGGTGCGACCCCCGATTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTGCTTCGACGGTCCTGACGACCATAATCNACAGCACGGCTCGCAGATCTCTTGGTTAT
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                                                                                                         (first entry)
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                                              ; pulp;
tissue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  conventional plant breeding techniques
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                                                                                                                                                                                                                                                                                                                                                          QY
                                                                                                                                                                                                                                                                                                                                                                                                                                 CC The present sequence represents a cDNA clone isolated from ripening CC banana pulp. 57 clones were isolated and are given in AAV28643 to CA AAV28699. The cDNA clone sequences can be used in a method of modulating CC ripening or tissue senescence process in plants of the genus Musa. The method comprises: (a) inserting into the plant material at least 1 of the CC selecting from the transformed regenerating the plant material, and (c) concerning or tissue senescence characteristics. Also described in the CC ripening or tissue senescence characteristics. Also described in the CC present invention are: (1) plants, their progeny, seed and material contained from the plants, produced by the above method; (2) a vector CC functional in plants comprising a promoter region which is operably in CC plant cells, a polynucleotide sequence as defined above, and a CC transcription termination sequence; and (3) a method of controlling CC plant pathogens comprising the application of anti-pathogenic agent to CC plants of (1).
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modulation of ripening or tissue senescence in bananas use of DNA isolated from ripening banana pulp to produce modified fruit {}_{\parallel}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-APR-1997;
10-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998
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TCAACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGG-ACGCAACGCNATANGTGGC
                                              TTGCTTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTTGGTTATC
                                                                                                                                                      CCTTGGAAGAGAGAGGCTGTAACCCGGGCAGCAGAGCCGCAGTCGACGACCCCGAGGAGG
                                                                                                                                                                                                     GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTT
                                                                                                                                                                                                                                       TGGTTTTGAACGGAGGTCGGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAATG
                                                                                                                                                                                                                                                                                       CAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTGC
                                                                                                                                                                                                                                                                                                  CAATGAÇGGCGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 28; 72pp;
                                                                       TGTCGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCCATG
                                                                                                                                           CCTTGGAAGAGAGGGCTGTAACCAGGGCAGCAGCAGCCGCCANTCGACGACCCCGAGGAGG
                                                                                                                                                                                          GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTT
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96GB-0018862
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Length

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Gaps

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187 181 127 121

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RESULT 7
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                                        The present sequence represents a cDNA clone isolated from ripening banana pulp. 57 clones were isolated and are given in AAV28643 to AAV28699. The cDNA clone sequences can be used in a method of modulating ripening or tissue senescence process in plants of the genus Musa. The method comprises: (a) inserting into the plant material at least 1 of the 57 sequences (as above); (b) regenerating the plant material, and (c) selecting from the transformed regenerating the plants with modulated ripening or tissue senescence characteristics. Also described in the present invention are: (1) plants, their progeny, seed and material obtained from the plants, produced by the above method; (2) a vector functional in plants comprising a promoter region which is operably in plant cells, a polynucleotide sequence as defined above, and a transcription termination sequence; and (3) a method of controlling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bird
  plant pathogens comprising plants of (1).
                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modulation of ripening or tissue senescence in bananas - use of DNA isolated from ripening banana pulp to produce modified fruit
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                     (3) a method of controlling
ion of anti-pathogenic agent
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RESULT 8
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                                Musa acuminata
                                                   Fruit ripening;
triploid; plant
                                                                                  Banana fruit ripening-related
                                                                                                         15-MAR-1999
                                                                                                                               AAV69446;
                                                                                                                                                 AAV69446 standard;
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                                                                                                                                                                                                                                                          CNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGC--TTTAANACNATCGA
                                                                                                                                                                                                                                                                                      GGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACN
                                                                                                                                                                                                                                                                                                                                CAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                               GTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAGAGAGGGCTGTAACCCGGGCAGCAGAAGCCGCAGTCGACGACGCCCCGAGGAGGTTGC
                                                                                                                                                                                                      NGGACCCNGTTTCCACTTCCNCATTNGC
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                                                                                                                                                                                                                                                                                                                                                   CGGGGAATTTGTTCGTTGTGACAGACTCCGGGGGACNATGATCCCCGGTGAATCCTCGCCCG
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                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCGGTTCAGGCAACCCGATCGACNACTGCTGGCGGTGCGACCCCGATTGGCATNTCAA
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                                                                                                       (first entry
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                                                    banana; modulator;
breeding; ss.
                                                                                                                                                   cDNA;
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89.7%;
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                                                                                                                                                   ВP
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Pred. No. 1
                                                                                   clone U-12 cDNA.
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.5e-149;
                                                              senescence;
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                                                              crop;
                                                             plant;
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Best Local S
Matches 603
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bird
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              globally important crop characteristics in the de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAV69440-V69512 are CDNA sequences which are used in a method to modulate the fruit ripening or tissue senescence characteristics acuminata (banana) plants. The method provides a recombinant way modulating ripening/senescence characteristics of bananas, which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful in processes characteristics
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New method of modulating
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                                                                                     GG-ANTTGT
                                                                                                                                                                                                                                                                                                   ACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGC
                                                                                                                                                                                                                                                                                                                                            GACAGGGCTGTNACCAGGGCAGCAGAGAGCCGCAGTCNATGACCCCGAGGAGGTTGCTTCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACGGAGGTCGGGGTGGATTGGAAGCGAGAGGTCCTCTGGCTCGAGGAATGGCGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTGCTGGTTTTG
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                    ACACTTANATACNCCCGTCANCCCANGAAGT--GCCCCTCTGGGATCNCCTTTAAACCCC
                                     ACACTTANATAC - CCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCCTTTAAACNCN
                                                                                                                                                                   AAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGG
                                                                                                                                                                                                                                  GGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAG-
                                                                                                                                                                                                                                                                                                                                                                  GAGAGGGCTGTAACCCGGGCAGCAGAAGCCGCAGTCGACGACGACCCCGAGGAGGTTGCTTCG
                                                                                                                                                                                                                                                                                                                                                                                                              TCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTTCCTTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCGATCACATCTTTTTGCTCTGGGAAACGTGAGAGGTGAGACGAGGGCGGCAATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                704 BP; 146
                                                                                                                   GGAATTTGTTCGTTGTGACAGACTCCGGGGACNATGATCCCCGTGAATCCTCGCCCGGGA
                                                                                                                                                    AAAAAAGCTCNCTGACTGTGGCATTGGCTTTGGCCGCAACGCCATANGTGGCCGCGACGG
                                                                                                                                                                                                                 GGTTCAGGCAACCCGATCGACNACTGCTGGCGGTGCGACCCCGATTGGCATGTCAACAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97GB-0010370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       odulating fruit ripening or tissue senescence of Musa plants - by introducing DNA sequencesses for modifying plant/fruit ripening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-GB01297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conventional plant breeding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              p. In particular, the method can modulate such
dessert banana, which due to its triploid nat:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 510.8; DB 20;
Pred. No. 4.8e-142;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             due to its triploid techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28 other;
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of
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AAV69458
IID AAV69458
AC AAV69458
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XX Frui
XX Frui
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fruit ripening;
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AAV69440-V69512 are cDNA sequences which are used in a method to modulate the fruit ripening or tissue senescence characteristics of Mus accuminata (banana) plants. The method provides a recombinant way of modulating ripening/senescence characteristics of bananas, which are a globally important crop. In particular, the method can modulate such characteristics, in the dessert banana, which due to its triploid nature is unaffected by conventional plant breeding techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New method of modulating fruit ripening or tissue sene characteristics of Musa plants - by introducing DNA se useful in processes for modifying plant/fruit ripening
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                                                                                                                                                                                                                al Similarity
639; Conserv
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                                                                                                                                        TGGTTTTGAACGGAGGTCGGGGGGGGGGTGGATTGGAAGCGAGGAGGTCCTCTGGCTCGAGGAATG
                                                                      CAATGACGGCGGGTTTAAGATGGATTCCTCCTCTGCTTCTTCTTCTTCTGGGCTTCCTGC
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RESULT 11
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XC AAV69449;
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DT 15-MAR-1999 (first
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DE Banana fruit ripening;
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                                                               Banana fruit ripening-related clone U-51 cDNA
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                                                                                                                                                     GAAGTTGCCCCCTCTGGGATCCCCCTTTAAACNCNAANTGGAAATCTCNCTCNANGGAAGA
                                                                                                                                                                                                                    - AAGACGAACCACTCTGGATCATCTTCAAACGCGACATGGTTATAAC - CTTGAAGCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                               (first
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990S-0160768

990S-0160814

990S-0160814

990S-016088

990S-0160980

990S-0160980

990S-0161406

990S-0161406

990S-0161406

990S-0161350

990S-0161351

990S-0161351

990S-0161351

990S-0161352

990S-0161352
                                        banana; modulator; tissue senescence; \operatorname{crop}; \operatorname{plant}; \operatorname{breeding}; \operatorname{ss}.
                                                                                                               cDNA;
                                                                               entry)
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Pred. No. 4.6e
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nes 168;
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RESULT 12
AAC42069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 272; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV69440-V69512 are cDNA sequences which are used in a method to modulate the fruit ripening or tissue senescence characteristics of Musa acuminata (banana) plants. The method provides a recombinant way of modulating ripening/senescence characteristics of bananas, which are a globally important crop. In particular, the method can modulate such characteristics in the dessert banana, which due to its triploid nature is unaffected by conventional plant breeding techniques.
  17-OCT-2000
                       AAC42069;
                                           AAC42069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New method of modulating fruit ripening or tissue senescence characteristics of Musa plants - by introducing DNA sequences, useful in processes for modifying plant/fruit ripening characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
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                                           standard; DNA; 1526
                                                                                            CACATCC
                                                                                                                CNCTCCC
                                                                                                                                  AGGAGGAGCTCATCATGAACTCCCACAAGACCATCGACGGCCGGGGCGCCAGCGTCCACA
                                                                                                                                                                                      NGGAAGAACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACA
                                                                                                                                                                                                                               NTCCAANGAAGTTGCCCCTTTGGGATCCCCTTTAAACNCNAANTGGAAATCTCNCTCNA
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63.7%;
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Pred. No. 1.1e-34;
D; Mismatches 149
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05-MAR-1999;
09-MAR-1999;
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17-JUN-1999;
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on; signal transduction pathway;
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Best Local Similarity 58.9%;
Matches 285; Conservative
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AAACGACGATAACCCGGGTTAATCCTAAACCGGGGAACATTACGTCACGCASTAATTCAAG
                  CGGGGACNATGATCCCCGTGAATCCTCGCCCGGGAACACTTANATACCCCGTCNTCCAAN
                                                                 GAAGCCGCAGTCGACGACCCCGAGGAGGTTGCTTCGACGGTCCTGATGACCATAATCAAC
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Pred. No. 6.3e-34;
1; Mismatches 192;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
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                                                                                                                                                           Query
Best L
                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                           AAV69440-V69512 are cDNA sequences which are used in a method to modulate the fruit ripening or tissue senescence characteristics acuminata (banana) plants. The method provides a recombinant way modulating ripening/senescence characteristics of bananas, which globally important crop. In particular, the method can modulate s characteristics in the dessert banana, which due to its triploid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New method of modulating fruit ripening or tissue senescence characteristics of Musa plants - by introducing DNA sequences, useful in processes for modifying plant/fruit ripening
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 21-22; 78pp; English
                                                                                                                                                                                                                              Sequence 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-059745/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ZENE ) ZENECA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     triploid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fruit ripening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Banana fruit ripening-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV69445;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV69445
                                                                                                                                         Local Sines 275;
                                                                                                                                                                                                                                                                             unaffected
    385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acuminata
                                               135
                                                                                            325
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                                                                                                                                                           Similarity
                                                                             ATAATCAACAGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCG
ATCGACGACTGCTGCCGTGCGACCCTGATTGGCATGTCAACAGAAAAAAGCTCGCTGAC
                                            AGAAGCTTGAACGTGTCGCGGCGGCGACTGGGCTACTTGTCATGCGGCACCGGCAATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGTTGCCCCCTCTGGGATCCCCCTTTAAACNCNAANTGGAAATCTCNCTCNANGGAAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medina-Suarez
                                                                                                                                      Conservative
                                                                                                                                                                                                                                вР;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97GB-0010370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-GB01297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   breeding; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             banana; modulator;
                                                                                                                                                                                                                                157
                                                                                                                                                                                                                                                                          conventional plant breeding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                         17.9%;
64.0%;
                                                                                                                                                                                                                              A; 245 C; 197 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RDJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            749
                                                                                                                                      0
                                                                                                                                 Score 144.4; DB:
Pred. No. 9.4e-33
D; Mismatches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone U-11 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seymour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tissue senescence; crop; plant;
                                                                                                                                                                                                                                128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GB;
                                                                                                                                                                                                                              Ŧ,
                                                                                                                                                                                 DB 20;
                                                                                                                                      147;
                                                                                                                                                                                                                                                                        techniques
                                                                                                                                                                                                                                22 other;
                                                                                                                                      Indels
                                                                                                                                                                                 Length
                                                                                                                                                                                 749;
                                                                                                                                    8;
                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                       such
                                                                                                                                                                                                                                                                                                                                        of Musa
of
are a
                                                                                                                                                                                                                                                                                                  nature
                                            194
                                                                                       384
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               556
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RESULT 14
AAV28659
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DЬ
                                                                                                                   Modulation of ripening use of DNA isolated from
                                                                                                                                                                  Bird
                                                                                                                                                                                                    25-APR-1997;
10-SEP-1996;
                                                                                                                                                                                                                                                                                                                                 Ripening banana pulp cDNA clone U-U115
                                                                                          Claim 1;
                                                                                                            modified
                                                                                                                                               WPI; 1998-207389/18
                                                                                                                                                                                                                               08-SEP-1997;
                                                                                                                                                                                                                                                 19-MAR-1998
                                                                                                                                                                                                                                                                   W09811228-A2
                                                                                                                                                                                                                                                                                      Musa acuminata
                                                                                                                                                                                                                                                                                                       genetic control;
                                                                                                                                                                                                                                                                                                                Banana;
                                                                                                                                                                                                                                                                                                                                                   29-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                     AAV28659;
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                                                                                                                                                                                  (ZENE )
                                                                                                                                                                 CR,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          195
                                                                                                                                                                                  ZENECA
                                                                                                                                                                                                                                                                                                              ripening;
                                                                                         Page 28-29;
                                                                                                            fruit
                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCACATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCNCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCNTCCCCAACNTCTTCTTCCNTNGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACATCTCCGGCGGGCCGTGCATCACCATCC - AGTACGTCACCAACATCNTCATCCACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGAGGAAGCTCATCATGAACTCCCACAAGACCATCGACGGCCGGGGGCGCCAGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NANGGAAGAA-CTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCATCC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAATCTCNCTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGGTTCGTTGT 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCGCCATCGGGTTCGGGAAGAACGCGATTGGGGGCAGGGACGGCG-AGATATACNTGGT
                                                                                                                                                                 Medina-Suarez
                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                   LTD.
                                                                                                                                                                                                   97GB-0008366
96GB-0018862
                                                                                                                                                                                                                               97WO-GB02424
                                                                                                                                                                                                                                                                                                       tissue senescence;
                                                                                                                                                                                                                                                                                                       pulp; Musa acuminata
tissue senescence; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -AGGAGGAGCCGCTGTGGATCATCTTCAAGCGCGACATGGTCATCCAGCTG
                                                                                                                                                                                                                                                                                                                                                                                        cDNA;
                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                    from ripening
                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                       72pp;
                                                                                                                             or tissue senescence in
                                                                                                                                                                 RDJ,
                                                                                                                                                                                                                                                                                                                                                                                       842
                                                                                         English
                                                                                                                                                                                                                                                                                                                                                                                        ΒP
                                                                                                                                                                Seymour
                                                                                                                    banana
                                                                                                                                                                                                                                                                                                               CV.
                                                                                                                                                                                                                                                                                                                                  SEQ
                                                                                                                    pulp to
                                                                                                                                                                                                                                                                                                                Grand Nain;
                                                                                                                                                                                                                                                                                                                                  ID
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                                                                                                                    produce
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                                                                                                                    genetically
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            254
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The present sequence represents a cDNA clone isolated from ripening banana pulp. 57 clones were isolated and are given in AAV28643 to AAV28699. The cDNA clone sequences can be used in a method of modulating ripening or tissue senescence process in plants of the genus Musa. The method comprises: (a) inserting into the plant material at least 1 of the 57 sequences (as above); (b) regenerating the plant material, and (c) selecting from the transformed regenerants, plants with modulated

ripening

invention

or tissue senescence characteristics.

plants,

their progeny,

seed

Also described in the

the

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RESULT 15
AAV69448
ID AAV69
XX AAV69
XX AAV69
XX IS-MA
AC AAV69
XX IS-MA
XX IS-MA
AC AAV69
AC AAV69
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                        Bird CR,
                                                                  (ZENE ) ZENECA LTD
                                                                                                                    20-MAY-1997;
                                                                                                                                                                05-MAY-1998;
                                                                                                                                                                                                               26-NOV-1998
                                                                                                                                                                                                                                                            WO9853085-A1
                                                                                                                                                                                                                                                                                                           Musa acuminata
                                                                                                                                                                                                                                                                                                                                                     Fruit ripening; banana; modulator; tissue senescence; crop; triploid; plant breeding; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                               Banana
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                        Medina-Suarez
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modulate the fruit ripening or tissue senescence characteristics acuminata (banana) plants. The method provides a recombinant way modulating ripening/senescence characteristics of bananas, which globally important crop. In particular, the method can modulate sucharacteristics in the dessert banana, which due to its triploid is unaffected by conventional plant breeding techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New method of modulating fruit ripening or tissue senescence characteristics of Musa plants - by introducing DNA sequences useful in processes for modifying plant/fruit ripening
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855 California Ave, Palo
Tel: 650 723 2227
Fax: 650 725 8221
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                                   Email: walbot@stanford.edu
Plate: 606055 row: G colum
Location/Qualifiers
                                                                                                                                                                                              Department of Biological Sciences
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                                                           Contact: Schulman AH
Institute of Biotechnology
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                             University of Helsinki
P.O.Box 56 (Viikinkaari 6A),
                                                                                             Unpublished (2002)
                                                                                                            Barley EST's
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Saren, A.-M., Tanskanen, J.,
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/db_xref="taxon:4577"
/clone_lib="606 - Ear
lab"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Organ: immature ear; Vector: pBK-CMV; Site_1: EcoRI
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/dev_stage="ear length from (
/lab_host="XLOLR (Stratagene)
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Pred. No. 8.7e-45;
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                       Tel: 864 656 7288
Fax: 864 656 4293
Email: rwing@clemson.edu
                                                                   Clemson University
100 Jordan Hall, Clemson,
                                                                                                                           1 (bases 1 to 589)
Wing, R.A. and Dean, R.A.
A BAC End Sequencing Framework to
Unpublished (1998)
                                                                                                                                                                                                                              Oryza sativa.
Oryza sativa
                                                                                                                                                                                                                                                          AZ135244.1
GSS.
                                                                                                                                                                                                                                                                                     AZ135244
OSJNBb0115A18r CUGI Rice E
clone OSJNBb0115A18r, DNA
AZ135244
Seq primer: GGAAACAGCTATGACCATGClass: BAC ends
                                                                                                Clemson University Genomics Institute
                                                                                                               Contact: Wing RA
                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoldeae; Oryzeae; Oryza.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Hordeum vulgare"
/db_xref="taxon:4513"
/clone="50000800244H10F1"
/clone="500008"
/tissue_type="Callus"
/note="Callus K19"
a 175 c 134 g 69 t
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Pred. No. 4.5e-42;
                                                                                                                                                                                                                                                                                                                                                                                                      445
                                                                                                                                                                                                                                                                                                  589 bp DNA linear
BAC Library (EcoRI) Oryza
A sequence.
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                                                                      29634, USA
                                                                                                                                            Sequence
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      CATCCATGGCCTGCAC
                                             CTTCCNTNGCCTCCNC 749
                                                                                                                              GTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCNTCCCCAACNTCTT
                                                                                                                                                                     TGATCACGCTC - AAGCAGGAGCTGATCATGAACAGCTTCAAGACCATCGACGGCCGTGGC
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                                                                                     GCCAACGTGCACATCGCCAATGGCGCCTGCATCACCATCC-AGTACGTCACCAACGTCAT
                                                                                                                                                                                                                                                      CCGGTACGCCGTCATCC----GCGACGAGCCGCTGTGGATCGTCTTCAAGCGCGACATGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of 121 Kb providing approximatley 15 haploid genome equivalents. The deep coverage allows the isolation a particular sequence with a probability of 99.9 %. Three high density filters, each containing 18,432 clones (doubly spotted), represent the whole library for colony screening and can be requested from the Clemson University BAC/EST Resource Center (www.genome.clemson.edu)."

a 203 c 171 g 91 t 3 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Vector: pBaCindigo; Site_1: EcoRI; Site_2: EcoRI; Rice is the most important food crop in the world. Half of the world population, especially those inhabiting highly populated areas of the humid tropics and subtropics, rely on rice as their primary source of carbohydrate. Monocotyledonous rice is a diploid plant (2n=24) with a haploid genome equivalent of 431 Mbp (Arumuganathan and Earle, 1991). The relatively small genome of rice, three times larger than that of Arabidopsis, makes it suitable for genomic studies. In order to facilitate positional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cloning, physical mapping and genome sequencing of rice, we have constructed a BAC library from Oryza sativa, we have variety using EcoRI as the cloning enzyme. The library contains 55,296 clones with an average insert size
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="OSJNBb0115A18r"
/clone_lib="CUGI Rice BAC Library (EcoRI)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cultivar="Nipponbare"
/db_xref="taxon:4530"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Oryza sativa"
/strain="Japonica"
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68.1%;
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Local Similarity
                                                                                                                                                                                                        236 ATGCTTCCTTGGAAGAGAGGGCTGTAACCCGGGCAGCAGAAGCCGCGAGTCGACGACCCCG
                                                                                                             296 AGGAGGTTGCTTCGACGGTCCTGATGACCATAATCAACAGCACGGCTCGCAGATCTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   High quality sequence stop: 430.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Public Soybean EST Project 
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C. Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R., and Wilson, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                www.resgen.com
Seq primer: ~40RP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      call: (800)-533-4363 or contact:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Shoemaker R/Public Soybean EST Project
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GTTATCTGTCGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATT 415
                                                      AGGAGATTGCTTCCATGGTTGATGAGAGCATACGCAACTACACGGCTCGAAGGAACCTGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="Vector: pBluescriptII SK+; Site_1: EcoRI; Site_2: 'XhoI; This cDNA library was constructed from mRNA isolated from etiolated hypocotyl tissue of 9-10 day old seedlings of the cultivar Williams 82. Complementary DNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        restriction site of the pBluescript vector. The cDNA fragments were transformed into DH10B host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="Hypocotyl, 9-10 day old etiolated seedlings"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="SOYBEAN CLONE ID:"
/clone_lib="Gm-c1045"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Gibco BRL). This library was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Glycine max"
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63.7%;
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                                                                                                                                                                                                                                                                                                                  Score 170; DB 14; Pred. No. 3.3e-40;
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                                                                                                                                                                                                                                                                                       168;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ne SOYBEAN CLONE ID: 5';, mRNA sequence
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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                                                          Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC clade; Panicoideae; Andropogoneae; Zea.
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hq82a06.bl WGS-ZmaysF
genomic clone hq82a06
                                                                                                                                                                                                                                                                                                                     Email: mccombie@cshl.org
Plate: hq82 row: a colu
Seq primer: -21M13UnivFwd
                                                                                                                                                                                                                                                                                                                                                                             Tel: 516 367 8884 Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2002)
Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rabinowicz, P.D., O'Shaughnessy, A.L., Balija, V., Katzenburger, F., King, L., Miller, B., Muller, S., Zutavern, T., McCombie, W.R. and Martienssen, R.A.
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                                                                                                                                                                                                                                                                                   quality
                                                                                                                                                                   /organism="Zea mays"
/cultivar="B73"
/db_xref="taxon:4577"
/clone="hq82a06"
//note-"Organ: immature ears; Site_1: Xba I; Site_2: Xba I; The vector was digested with XbaI and one nucleotide was added by fill in in the recessive 3' end. The genomic DNA was nebulized, end repaired, adaptor ligated and size fractionated using sephadex. The resulting fragments were between 0.8 and 3 kb and were cloned into the vector (.x/y reads in M13mp19, .b/g reads in pUC19). The same
                                                                                                                               /clone_lib="WGS-ZmaysF (JM107 adapted methyl filtered)"
/lab_host="JM107 or DH5a"
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QGG23G08.yg.ab1 QG_EFGHJ
QGG23G08, mRNA sequence.
                                                                                                                                                  Asmundson Hall, UCD, I
Tel: 1-(530)-742-1742
Fax: 1-(530)-752-9659
                                                                                                                                                                                 Department of Vegetable Crops, R.W.Michelmore University of California at Davis (UCD) Asmundson Hall, UCD, Davis, CA 95616, USA
                                                                                                                                                                                                                                                                                              Kozik, A., Michelmore, R.W., Knapp, S., Matvienko, M., Rieseberg, L., Lin, H., van Damme, M., Lavelle, D., Chevalier, P., Ziegle, J., Ellison, P., Kolkman, J., Slabaugh, M.S., Livingston, K., Zhou, Y., Lai, Z., Church, S., Jackson, L. and Bradford, K.
Lettuce and Sunflower ESTs from the Compositae Genome Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BQ999911.1 GI:22434307
EST.
                                                                                                                                Email: akozik@atgc.
                                                                                                                                                                                                                                          Contact: Alexander Kozik [R.W.Michelmore
                                                                                                                                                                                                                                                              Unpublished (2002)
                                                                                                                                                                                                                                                                               http://compgenomics.ucdavis.edu/
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/cultivar="L.serriola"
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                                                                                                             c.org [michelmore@vegmail.ucdavis.edu]
QG_CA_Contig5568, see http://cgpdb.uc
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EST.
                  Kozik, A., Michelmore, R.W., Knapp, S., Matvienko, M., Rieseberg, L., Lin, H., van Damme, M., Lavelle, D., Chevalier, P., Ziegle, J., Ellison, P., Kolkman, J., Slabaugh, M.S., Livingston, K., Zhou, Y., Lai, Z.,
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trache
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots
Asteridae; euasterids II; Asterales; Asteraceae; Lactuceae;
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QGD8F08.yg.abl QG_ABCDI
QGD8F08, mRNA sequence.
Church, S., Jackson, L.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            334 AGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCGATCGACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://compgenomics.ucdavis.edu/
Unpublished (2002)
Contact: Alexander Kozik [R.W.Michelmore]
Department of Vegetable Crops, R.W.Michelmore
University of California at Davis (UCD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: akozik@atgc.org [michelmore@vegmail.ucdavis.edu] belongs to contig QG_CA_Contig5568, see http://cgpdb.uc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tel:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Asmundson Hall, UCD, Davis, CA 95616,
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                                  TGGCGCCTGCNTCACCANCCAATTT 718
                                                                                                                       ACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAA
                                                                                                                                                                 -AAGATACCCCTCTTTGGATCGTGTTCAAACGCGACATGGTGAT-TCAATTGAAGCAAGA
                                                                                                                                                                                      GAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAATCTCNCTCNANGGAAGA
                                                                                                                                                                                                                                                   CGGCGACGACGAT-CCAGTGAACCCACGACCCGGCACCCTCCGCCACGCCGTCATTC---
                                                                                                                                                                                                                                                                         CGGGGACNATGATCCCCGTGAATCCTCGCCCGGGAACACTTANATACCCCGGTCNTCCAAN
                                                                                                                                                                                                                                                                                                                               GGATTTGGCCGGAATGCAATCGGAGGTCGCGAC-GGCCGTTATTACATGGTCACAGATTC
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                                                                                ACTTATTATGAACAGTTTTAAAAACCATCGATGCTCGTGGAGTCAATGTTCATATCGCGAA
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te: QGD8 row: F column:
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1-(530)-752-9659
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 size bias. Details of each source of RNA and library construction can be obtained at http://cgpdb.ucdavis.edu/
TAG_LIB-OG_ABCDI lettuce salinas
TAG_TISSUE=shoots environmental stress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Separate cDNAs were generated using primers that incorporated unique 5' and 3' tags to distinguish each source of RNA. cDNAs were then pooled, size-fractionated, directionally cloned into a custom medium-copy vector and transformations made with four size classes to minimize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAG_SEQ=TCGCAACGGG"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Vector: pBRcDNASfiAB; The library was constructed
from 10 different sources of RNA from a single genotype.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /lab_host="E.coli"
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/cultivar="Salinas"
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SOURCE
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AZ916009
LOCUS
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                   379
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AZ916009
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC
clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Class: shotgun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           University of Missouri
209 Curtis Hall, Columbia, MO 65211, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Schroeder S
Missouri Maize Project--Maize Mapping Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Missouri Maize Project-Maize Mapping Project.
PstI Zea mays B73 PstI leaf tissue library
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AZ916009 784 bp DNA linear GSS 15-MAR-2001 PStI_1_h12-c-1_0 Maize PstI B73 Leaf Zea mays genomic, DNA
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GCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGTT 498
                                                                                                                                                                                                                                                                                                                                 AACCCGATCGACCGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAGAAAAAAAGCTC 438
                                                            TCNCTCNANGGAAGAACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCT 678
                                                                                                                         ACGCCGTCATCC----AGGAGGAGCCGCTGTGGATCATCTTCAAGCGGGACATGGTGATC
                                                                                                                                            ACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAATC 618
                                                                                                                                                                                     GCCGACTGCGGCATCGGGTTCGGCCGCAACGCCATCGGCGGCCGCGAC-GGCAAGGTGTA 590
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573 884 7850
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:4577"
/clone_lib="Maize_PstI B73 Leaf"
/clone_lib="Maize_PstI B73 Leaf"
/tissue_type="Leaf"
/lab_host="DH5 alpha"
/note="Organ: Leaf; Vector: PUC19; PstI digested B73
genomic sucrose gradient size fractionated fragment sizes
of 0.5kb to 2kb ligated to PUC19 transformed in DH5 alpha"
a 202 c 210 g 182 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Zea mays"
/cultivar="B73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          20.4%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 164.4; DB 17; Length 784; Pred. No. 1.9e-38; 0; Mismatches 107; Indels 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                        7;
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RESULT 9

Qу 6	Db . 5		Ωу 5	Qy . 4 Db 3	Qy 4 Db 3	Qy 3	Qy 2 Db 2	Query Mat Best Loca Matches	BASE COUNT	FEATURES Source	JOURNAL COMMENT	TITLE	ORGANISM ORGANISM REFERENCE AUTHORS	BQ795866 LOCUS DEFINITION ACCESSION VERSION KEYWORDS
40 TATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGC 699	80 GCCCCTCTGGGATCCCCTTTAAACNCMAANIGGAAAFCTCNCTCNANGGAAGAACTCNT 539 10 GCCCCTCTGGGATTGTGTTCAAGCGAGACATGGTGATCACACT-GAAGCAGGAGCTCAT 558	TGATGAT -CCTGTCAACCCCAAGCCTGGCACTCTGCGCCATGCTGTCATCCAGGAT	20 CNATGATCCCCGTGAATCCTCGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTT 579	60 GGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGTTCGTTGTGACAGACTCCGGGGA 519 	400 CGGTGCGACCCTGATTGGCATGTCAACAGAAAAAGCTCGCTGACTGCGGCATTGGCGTT 459 	340 GCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCGGATCGACGACTGCTGG 399	280 GCAGTCGACGACCCCGAGGAGGTTGCTTCGACGGTCCTGATGACCATAATCAACAGCACG 339	/ Match 20.1%; Score 162.4; DB 14; Length 685; Local Similarity 62.8%; Pred. No. 7.2e-38; nes 297; Conservative 0; Mismatches 169; Indels 7; Gaps 4;	/cultivar="Shiraz" /db_xref="taxon:29760" /clone="RT02IDI2" /clone_lib="Ripening Grape berries Lambda Zap II Library" /clone_lib="Ripening stage" /dev_stage="ripening stage" /note="Organ: Fruit; Vector: Lambda Zap II; Site_1: Eco RI ; Site_2: XhOI; Oriented library, construction described in Generation of ESTs from grape Berry (skin, pulp or seeds) at various developmental stages by Terrier,N., Ageorges,A., Abbal,P., Romieu,C. in J. Plant Physiol. 158 (12): 1575-83 2001" 171 a 166 c 180 g 168 t	2, place viala, 34 050 Montpellier Gedex 01, France Tel: 00-33-(0)4-99-61-28-62 Fax: 00-33-(0)4-99-61-28-67 Email: romieu@ensam.inra.fr Seq primer: T7. Location/Qualifiers 1. 685 /organism="Vitis vinifera"	Onpublished (2002) Contact: Romieu C. Unite de Recherche des Produits de la Vigne Institut National de la Recherche Agronomique	Couture, C., Dedaldechamp, F., Delrot, S., Glissant, D., Grimplet, J., Hamdi, S., Romieu, C. and Terrier, N. Generation of Expressed Sequence Tag from Grape Berry (skin, pulp or seeds) at Various Developmental Stages	Vitis vinifera.  Vitis vinifera  Vitis vinifera  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;  Vitaceae; Vitis.  1 (bases 1 to 685)  Abhal D Agassa A Argorges A Afgnassova P Barrien F	BQ795866 685 bp mRNA linear EST 30-JUL-2002 EST 4804 Ripening Grape berries Lambda Zap II Library Vitis vinifera cDNA clone RT02ID12 3', mRNA sequence. BQ795866 BQ795866.1 GI:22010832

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RESULT 10
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
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HVSMEn0018A17f Hordeum vulgare:
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Clemson University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for barley genomics: Morex rachis cDNA library unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Chin,A., Frisch,D., Atkins,M., Yu,Y., Henry,D., Palmer,M., Rai
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Total hq bases = 473
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Tel: 864 656 7288
Fax: 864 656 4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Wing RA
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632 bp mRNA linear EST 22-OCT-2001
HVSMEn0018A17f Hordeum vulgare rachis EST library HVcDNA0015
(normal) Hordeum vulgare cDNA clone HVSMEn0018A17f, mRNA sequence.
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                              125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oates,R. and Main,D. lopment of a genetically and physically anchored
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 quality sequence stop: 613.
                                                                                                                                                                                                                                    in vivo excised to give pBluescript SK(-) cDNA phagemids (Chin). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: pBluescript SK(-); Site_1: EcoRI; Site_2: XhoI; Plants were grown at Washington State University, Pullman, WA in a greenhouse, the rachises were excised and frozen in liquid nitrogen (Kleinhofs lab). In the TJ Close lab at the University of California, Riverside total RNA was prepared, poly(A) was purified, one primary unamplified cDNA library was made, and 1 million pfu were
                         this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html) % 246 c 171 g 89 t 1 others
                                                                                                                                                                   http://www.genome.clemson.edu/projects/barley. To order
                                                                                                                                                                                              sequence analysis see
                                                                                                                                                                                                                above. For more details on library preparation and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="Hordeum vulgare rachis EST library HVcDNA0015
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/clone="HVSMEn0018A17f"
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                                                                                                                                                                        Email: mseki@rtc.riken.go.jp
An Arabidopsis full-length cDNA library was constructed essentially
An esported previously (Seki et al., 1998).This clone is in a
modified pBluescript vector as a SstI/XhoI insert. Please visit our
web site (http://www.gsc.riken.go.jp/e/plant/index _e.html) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seki,M., Narusaka,M., Ishida,J., Kamiya,A., Satou,M., Nakajima,M., Oono,Y., |Sakurai,T., Carninci,P., Kawai,J., Itoh,M., Ishii,Y., Arakawa,T., Shibata,K., Shinagawa,A., Muramatsu,M., Hayashizaki,Y.
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                                                                                                                                                                                                                                                                                                                                                                                                         Large scale analysis of Arabidopsis full-length cDNA (2002b) Unpublished (2002) Contact: Motoaki Seki Plant Functional Genomics Research Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arabidopsis thaliana
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
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                                             /db_xref="taxon:3702"
/clone="RAFL04-19-N09"
                                                                                          organism="Arabidopsis thaliana"
                                                                                                                                              Location/Qualifiers
dev_stage="rosette plants"
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Pred. No. 4e-34;
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                                                                                                                                                                                                                                                                                                                                    Mesembryanthemum crystallinum
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Spermatophyta; Magnoliophyta; Aizoaceae; Mesembryanthemum.

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                                                                                                                                                                                                                                                                                                                       Unpublished (2000)
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BE035831
BE035831.1 GI:8330840
                                                                                                                                                                                         Email: cbm@u.arizona.edu
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                                       /organism="Mesembryanthemum
/db_xref="taxon:3544"
/clone_lib="MO"
  /tissue_type="apical meristem
/dev_stage="5 weeks"
                                                                                                                         Location/Qualifiers
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280 GCAGTCGACGCCCGAGGAGGTTGCTTCGACGGTCCTGATGACCATAATCAACAGCACG 339
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BQ148154
BQ148154.1 GI:20285213
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289; Conserv
                                                                                                                         COlleact. And John Biology Division
The Samuel Roberts Noble Foundation
The Samuel Roberts Noble Foundation
OK
                                                                                                                                                                                                                                                                                                                     Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae
                                                                                                                                                                                                                               Torres-Jerez,I., Scott,A.D., Harris,A.R., Gon
Flores,H.R., Inman,J.T., Weller,J.W. and May,
Expressed Sequence Tags from the Samuel Rober
                Email: gdmay@noble.org
Insert Length: 612 Std Error: 0.0
Plate: 062 row: C column: 07
Seq primer: TCACACAGGAAACAGCTATGAC
                                                                                                                                                                                 Contact: May GD
                                                                                                                                                                                                Medicago truncatula flower library Unpublished (2001)
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                        BQ134100.1
BQ134100.1
EST.
                                                                                                                        BQ134100 420 bp mRNA linear EST 19-APR-2002 san57cl0.y1 Gm-cl052 Glycine max cDNA clone SOYBEAN CLONE ID: Gm-cl052-3596 5' similar to TR:024416 024416 PECTATE LYASE. ;, mRNA
soybean.
                                                                                                     sequence
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/dev_stage="Developmentally pooled. Contains a mixture of yeary young, developing, fully-opened flowers and flowers in early transition into pods."
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/db_xref="taxon:3880"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Vector: Lambda Zap;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="Developing flower"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Shoemaker R/Public Soybean EST Project Public Soybean EST Project Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C. Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurl, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: estewatson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact: ccu@resgen.com web site:
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Public Soybean EST Project
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                           NATANGTGGCCGCGACGGGGAATTTGTTCGTTGTGACAGACTCCGGGGGACNATGATCCCC
                                                                                                  CAACTGGCAACGCAATCGGAAGCGTCTTGCAGATTGTGGCATTTGGTTTTTGGCCGAAACGC
CATCGGTGGCCGTGA-TGGAAAATTCTATGTGGTGACCGCAGGGATGATGA-CCCT
                                                                                                                                                TGATTGGCATGTCAACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGC
                                                                                                                                                                                                                                                                                                               CCCAGAGGAAGTGGTTTCAATGGTTGAGATGAGCATCCAAAACAGCACAGAGAGGAGGAA
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             synthesized from mRNA using a primer consisting of a poly(dT) sequence with a XhoI restriction site and a 3' anchor. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by XhoI digestion. The cDNA fragments were directionally cloned into the EcoRI-XhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DH10B host cells (GibcoBRL). The library was constructed in cooperation with Dr Dr Reim's labrary was constructed in cooperation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note-"Vector: pBluescript II SK+; Site_1: EcoRI; Site_XhoI; The Harosoy NIL was constructed and seed was provided by Dr. J. Specht, University of Nebraska (Shoemaker and Specht, 1995). The cDNA library was constructed from mRNA isolated from whole seedlings of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           //clone="SOYBEAN CLONE ID: Gm-c1052-3596"
//clone_lib="Gm-c1052"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                with Dr. Paul Keim's laboratory at Northern Arizona
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="whole see
/dev_stage="1 week old"
/lab_host="DH10B"
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63.2%;
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Pred. No. 2.4e-32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (2002)
Contact: Naama Menda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Menda,N., Gutérman,I., Piestun,D., Emanuel,M., Adam,Z.,,E., Lewinsohn,E., Zamir,D., Vainstein,A. and Weiss,D. Rose petal genomics: an integrated approach to discover
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                                                                  AGTACTGCGAGAAGAAACTTGGGATTTTTCTCATGCGCAACAGGGAATCCCATTGATGAC
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primer: T3 forward.
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/dev_stage="Young open flower at stage four"
/note="Vector: pBKCMV; Site_1: EcoRI; Site_2: XhoI"
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                                                                              ACTCNITATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAA 693
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                                                               GCTTATAATGAACAGCTTCAAGACCATTGACGCTCGTGGAGTCAATGTCCACATTGCTTA
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Search completed: June 19, 2003, 13:05:37 Job time: 1107 secs

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	ALIGNMENTS				
Sequence 1, Appl	4 US-09-103-840A-1	4411529	4.14	33	45
Sequence 2, Appl	4 US-09-103-840A-2	4403765	4.1 4	ω ω	44
Sequence 3, Appli	4 US-09-144-085-3	33529	4.1	33	43
Sequence 24, Appl	4 US-09-072-596-24	726	4.1	33	42
Sequence 24, Appl	4 US-09-056-556-24	726	4.1	33	41
Sequence 24, Appl	4 US-08-818-111-24	726	4.1	33	40
Sequence 24, Appl	4 US-08-818-112-24	726	4.1	33	39
Sequence 14, Appl	1 US-08-232-463-14	7218	4.2	33.6	38
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Sequence 2, Appl	4 US-09-103-840A-2	4403765	4.24	34	36
Sequence 79, Appl	4 US-08-464-000-79	1368	4.4	35.2	35
Sequence 79, Appl	4 US-08-461-939B-79	1368	4.4	35.2	34
Sequence 79, Appl	1 US-08-175-069A-79	1368	4.4	35.2	ယ ယ
Sequence 79, Appl	1 US-08-290-448A-79	1368	4.4	35.2	32
Sequence 79, Appl	1 US-08-290-448A-79	1368	4.4	35.2	31
Sequence 304, App	4 US-09-072-596-304	1036	4.5	36.6	30
Sequence 71, Appl	4 US-08-464-000-71	1196	4.8	38.8	29
Sequence 71, Appl	4 US-08-461-939B-71	1196	4.8	38.8	28

TELECHMUNICATION TELEPHONE: (617) TELEFAX: (617) INPORMATION FOR SEQ SEQUENCE CHARACTE LENGTH: 1170 b TYPE: nucleic STRANDEDNESS: 1 TOPOLOGY: lines MOLECULE TYPE: 'c	CURRENT APPLICATION N FILING DATE: CLASSIFICATION PRIOR APPLICATION PRIOR APPLICATION N FILING DATE: APPLICATION N FILING DATE: ATTORNEY/AGENT NAME: Jane R REGISTRATION REFERENCE/DOC	STREET:  STATE: M STATE: M COUNTRY: COMPUTER: COMPUTER: COMPUTER: COMPUTER: COMPUTER: SOFTWARE:	GENERAL INFOME APPLICANT A
TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 227-7400 TELEFAX: (617) 227-5941 TEORNATION FOR SEQ ID NO: 94: SEQUENCE CHARACTERISTICS: LENGTH: 1170 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: 'CDNA	CURRENT APPLICATION UNBER: US/08/467,023  PILING DATE: June 6, 1995  CLASSIFICATION: 424  PRIOR APPLICATION DATA:  APPLICATION UNBER: 08/350,225  PILING DATE: December 6, 1994  ATTORNEY/AGENT INFORMATION:  NAME: Jane E; Remillard  REGISTRATION NUMBER: 38,872  REFERENCE/DOCKET NUMBER: 025.6 USD2 (IMI-028CPD2)	: 610 Lincoln St Waltham MA MA Y: USA; O21.54 READABLE FORM: TYPE: Floppy disk TYPE: Floppy disk TYPE: PC-DOS/MS-DOS RE: PAtentIn Release #1.0, Version #1.25	APPLICANT: Griffeth, Irwin J.; APPLICANT: Griffeth, Irwin J.; APPLICANT: Pollock, Joanne; APPLICANT: Bond, Julian F.; APPLICANT: Bond, Julian F.; APPLICANT: Kuo, Mei-Chang; APPLICANT: Yeung, Siu-mei H.; APPLICANT: Yeung, Siu-mei H.; APPLICANT: Exley, Mark A.; APPLICANT: Exley, Mark A.; APPLICANT: Exley, Mark A.; APPLICANT: Dowers, Steven P. TITLE OF INVENTION: Allergenic Proteins And Peptides From NUMBER OF SEQUENCES: 261 CORRESPONDENCE ADDRESS: ADDRESSEE: ImmuLogic Pharmaceutical Corporation, Inc.

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RESULT 2
US-08-467-023-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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Best Local Similarity
                                                                  NAME: JOIN NUMBER: 38,872
REGISTRATION NUMBER: 025.0
REFERENCE/DOCKET NUMBER: 025.0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPHONE: (617) 227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFO
APPLICANT:
                                                           INFORMATION FOR SEQ ID NO:
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NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Alleryento TITLE OF INVENTION: Japanese Cedar Pollen SEOUENCES: 261
                                                                                                                                                     APPLICATION NUMBER: 08/3:
FILING DATE: December 6,
ATTORNEY/AGENT INFORMATION:
NAME: Jane E. Remillard
                                                                                                                                                                                                                 CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
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STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                              LENGTH:
                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                  SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73 TGTATCTTGTTACTCTGATAATCCCATCGACAGCTGCTGGAGAGGAGATTCGAACTGGGA
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                nucleic acid
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                           1337 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                       610 Lincoln
                                                                                                                                                                                                                                                                                                                                                                                            USA
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Exley, Mark A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bond, Julian F.;
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Pollock, Joanne;
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                                                                                                                                                                                                                                                                                              PatentIn Release #1.0, Version #1.25
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26..1126
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89..1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ImmuLogic Pharmaceutical Corporation, Inc
                                                                                                                                                                                                                                                 June 6, 1995
                                                                                                                                                                                                                                                                                                                                            Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Richard D;
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                                                                                                                       025.6 USD2 (IMI-028CPD2)
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US-08-467-023-1
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Best Local :
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ORIGINAL SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: FEATURE:
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392 GTATAAGACTTTTGATGGCAGGGGAGCACAAGTTTATATTGGCAATGGCG
                                   649 CTTTAANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCG
                                                                        337
                                                                                                         589 GGGATCCCCTTTAAACNCNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAG 648
                                                                                                                                                277
                                                                                                                                                                                     529 CCGTGAATCCTCGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCT 588
                                                                                                                                                                                                                                                             469 GCNATANGTGGCCGCGACGGGGAATTTGTTCGTTGACAGACTCCGGGGACNATGATCC 528
                                                                                                                                                                                                                                                                                                                                                                                                            349 TCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGAC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                   181;
                                                                                                                                                                                                                          222 ACCATGGGAGGCAAGGGAGGAG-ATCTTTATACGGTCACGAACTCAGATGACGA----CC 276
                                                                                                                                                                                                                                                                                                 162 TCAAACTGGGCCCAAAATAGAATGAAGCTCGCAGATTGTGCAGTGGGCTTCGGAAGCTCC 221
                                                                                                                                                                                                                                                                                                                                    409 CCTGATTGGCATGTCAACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAAC 468
                                                                                                                                                                                                                                                                                                                                                                           102 TCTTTTGTAATTGGATCTTGCTTTTCTGATAATCCCATAGACAGCTGCTGGAGAGGAGAC 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                        TAATTTTCAGTGGGAATATGAATATAAAGCTCAAAATGCCTATGTAC----ATTGCTGG
                                                                                                                                              CTGTGAATCCTGCACCAGGAACTCTGCGCTATGGAGCAACCCGAGATAGGCCCCCTGTGGA 336
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66..1187
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129..1187
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51.7%;
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441
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US-08-467-023-96
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                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                             APPLICANT:
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FILING DATE:
                                                                                                                                            STATE:
                                                                                                                             COUNTRY:
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             APPLICATION NUMBER:
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                                                                                                                02154
                                                                                                                                                          Waltham
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                                                                                                                                           MA
                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/08467023
                                                                                                                                                                         610 Lincoln
                                                                                                                             USA
                                                                                                                                                                                                                                                                                                    Kuo, Mei-Chang;
Yeung, Siu-mei H.;
                                                                                                                                                                                                                                                                                                                                   Garman, Richard D;
                                                                                                                                                                                                                                                                                                                                                                         Griffeth,
                                                                                                                                                                                                                                                           Powers, Steven P.
                                                                                                                                                                                                                                                                         Brauer, Andrew; Exley, Mark A.;
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                                                                                                                                                                                                                                                                                                                                                  Bond, Julian F.;
                                                                                                                                                                                   ImmuLogic Pharmaceutical Corporation,
                                                                                                                                                                                                                 Japanese Cedar
261
                                                                                                                                                                                                                                              Allergenic
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                                         Version
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                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 58, Application US/08290448A Patent No. 5676954
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 1278 base pairs
                                                                                           ZIP: 02109-1875

COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                APPLICANT: Kuo, Mei-chang
TITLE OF INVENTION: Allergenic Proteins From Ragweed and Uses
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
APPLICATION NUMBER: US/08/290,448A FILING DATE: August 15, 1994 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/529,951 FILING DATE: May 29, 1990 APPLICATION NUMBER: US 07/325,365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/3: FILING DATE: December 6, ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Rogers, Bruce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Jane E. Remillard REGISTRATION NUMBER: 38,872 REFERENCE/DOCKET NUMBER: 02
                                                                                                                                                                                                           COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                           STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   203 CAAAGGAGGAGATTTT 218
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                                                                                                                                                                                                                                           Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCGACGGGGAATTT 495
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                                                                                                                                                                                                                            Massachusetts
                                                                                                                                                                                                                                                        60 State Street, suite 510
                                                                                                                                                                                                                                                                                                                                                    Klapper, David G.
Rafnar, Thorunn
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36..1145
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99..1145
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                                                                                                                #1.25
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US-08-290-448A-58
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US-08-290-448A-58
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                                                                                                                                                           STREET:
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                                                                                                             COUNTRY:
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                                                                                                02109-1875
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                                                                                                                                            Boston
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GENERAL INFORMATION:
APPLICANT: Rogers,
APPLICANT: Klapper,
APPLICANT: Rafnar,
APPLICANT: Kuo, Mei
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                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                             APPLICANT: Kuo, Mei-chang
TITLE OF INVENTION: Allergenic Proteins From Ragweed and
NUMBER OF SEQUENCES: 93
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SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: | CDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 46.7%;
les 156; Conservative
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STRANDEDNESS: single
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Pred. No. 0.00016;
0; Mismatches 171;
                          Version #1.
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US-08-175-069A-58
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US-08-290-448A-58
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                                                                                                                                                                                                                                GENERAL INFORMATION:
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                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD,
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                                                                                                                     TITLE OF INVENTION: Allergenic Proteins From NUMBER OF SEQUENCES: 93
                                                                                                                                                                                                            APPLICANT:
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NAME: Amy E. Mandragouras
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                                                                  STREET:
              COUNTRY:
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STRANDEDNESS: single
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02109-1875
                                                Boston
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                                                                                                                                                                                                                                                                                                                                                                                           GGACNCNGTGTCCTCGTCCACATTGCCAATGGCG 698
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                               Massachusetts
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                                                               60 State Street
              USA
                                                                                                                                                                         Klapper, David (Rafnar, Thorunn
                                                                                                                                                                                                            Rogers, Bruce
                                                                                                                                                        Kuo, Mei-chang
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46.7%;
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17, 1989
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Pred. No. 0.00016;
0; Mismatches 171; Indels
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RESULT 7
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                                                                        Sequence 58, Application US/08461939B Patent No. 6335019
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 156;
                                      GENERAL INFORMATION: APPLICANT: Rogers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 0
FILING DATE: May 29,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: December
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/3 FILING DATE: March 17, 1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 5.8%;
Local Similarity 46.7%;
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Rogers, Bruce
Klapper, David G
Rafnar, Thorunn
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Pred. No. 0.00016;
0; Mismatches 171;
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APPLICANT: Kuo, Mei-chang TITLE OF INVENTION: Metho TITLE OF INVENTION: Prote

Methods For Treating Sensitivity To A Protein Allergen Using Peptides Which Inlaude A T Cell Epit 93

APPLICANT: APPLICANT:

David G.

NUMBER OF SEQUENCES:

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1328 base pair
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CURRENT APPLICATION DATA:
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ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Pelon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 01 FILING DATE: 15-AUG-1994
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FILING DATE: 05-JUN-1995
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(617)742-4214
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46.7%;
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Pred. No. 0.00016;
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STRANDEDNESS: sing
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اسم. 6335020
سم. معموراً
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RESULT

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US-08-464-000-58 INFORMATION FOR SEQ ID NO: REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IM
TELECOMMUNICATION INFORMATION: COMPUTER READABLE FORM:
MEDIUM TYPE: 'Floppy disk FILING DATE: 05-JUN-PRIOR APPLICATION DATA: CURRENT APPLICATION DATA: SEQUENCE CHARACTERISTICS: ATTORNEY/AGENT INFORMATION: CORRESPONDENCE ADDRESS: TITLE OF INVENTION: Allergenic Peptides from Ragweed Pollen NUMBER OF SEQUENCES: 93 NAME: Amy E. Mandragouras REGISTRATION NUMBER: 36,2 APPLICATION NUMBER: US 0 FILING DATE: 17-MAR-1989 APPLICATION NUMBER: US 08/290,448 FILING DATE: 15-AUG-1994 APPLICATION NUMBER: US 07/529,951 FILING DATE: 29-MAY-1990 173 ACCGACAÂGCGTTAGCCGATTGTGCCCAAGGTTTTGCAAAGGGAACCTACGGTGGAAAAC 425 ACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCG 113 CATGTGAAGCACAACATTATAGACAAGTGCTGGAGGTGCAAAGCCGATTGGGCGAATA 365 CGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCA 424 Massachusetts Application US/08464000 1328 base pairs 60 State Street (617)227-5941 Conservative Rafnar, Thorunn PatentIn Release #1.0, IBM PC compatible SYSTEM: PC-DOS/MS-DOS LAHIVE & COCKFIELD, (617)227-7400 омьек: US/08/464,000 05-JUN-1995 single 5.8%; 46.7%; David US 07/325,365 G 0; IMI-018CN2 Score 46.6; DB 4; Pred. No. 0.00016; 0; Mismatches 171; Version #1. Length 1328; Indels 7; Gaps 232 484 172

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Best Local Similarity
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INFORMATION FOR SEQ
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
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ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/290,448A FILING DATE: AUGUST 15, 1994 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/529,951
                                                                                                                                                                                                                                                                                                                                            FEATURE:
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TITLE OF INVENTION
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FILING DATE: May 29, 1990
APPLICATION NUMBER: US 07/325,365
FILING DATE: March 17, 1989
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Rafnar, Thorunn
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DN: Allergenic Proteins From Ragweed and Uses
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46.7%;
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                    -GTCTACACGGTCACCAGTGATAAAGATGATGATGTTGCAAATCCA 306
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                                                                                                                                                                                                                    Score 46.6; DB 1;
Pred. No. 0.00016;
0; Mismatches 171;
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US-08-290-448A-73
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                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (617)227-594 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: IM TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: March 17, 1
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                     MOLECULE TYPE:
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                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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                                                                                                                                    Local
                                                                                                                                                                                                      NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: August
                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Amy E. Mandragouras REGISTRATION NUMBER: 36,2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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40. 5698204
               425 ACAGAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCG 484
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Application US/08290448A
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Klapper, Γρατιση
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                                                                                                                    Conservative
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March 17, 1989
                                                                                                                                    5.8%;
46.7%;
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                                                                                                                 Score 46.6; DB 1;
Pred. No. 0.00016;
0; Mismatches 171;
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365 CGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCA 424
CATGTGAAGCACACATTATAGACAAGTGCTGGAGGTGCAAAGCCGATTGGGCGAATA
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RESULT 11
US-08-175-069A-73
Query Match
Best Local Similarity
Matches 156; Conserv
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INFORMATION FOR SEQ
                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: IM
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
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MEDITM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TITLE OF INVENTION: allergenic Proteins From Ragweed and Uses
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/529,951
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                                                                                                                                          FEATURE:
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                                                                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: May 29
                                                                                                                                                                                                                                                                                                                                                                 NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,207
                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                 TOPOLOGY:
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                                                                                                                                                                                                                                      LENGTH: 1349 base pairs
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    Application US/08175069A
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- ^=^ TD NO: 73:
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         Conservative
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March 17, 1989
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                       5.8%;
46.7%;
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                         Pred. No. 0.00016;
       Mismatches
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US-08-461-939B-73
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                                                               TELEFAX: (617)742-421 INFORMATION FOR SEQ ID NO:
                                                                                                            REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: IM
TELECOMMUNICATION INFORMATION:
                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION: Methods For Treating Sensitivity To
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 0
FILING DATE: 15-AUG-1994
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 0 FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                  TELEPHONE:
                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                   APPLICATION NUMBER: US 0 FILING DATE: 17-MAR-1989
                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/529,951 FILING DATE: 29-MAY-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
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                         LENGTH:
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                       1349 base pairs
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                                                                                (617)742-4214
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                  (617)227-7400
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Protein Allergen Using Peptides Which Inlcude A T Cell Epit
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GENERAL INFORMATION:
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                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/464,000
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                   APPLICATION NUMBER: US 07/529,951
FILING DATE: 29-MAY-1990
APPLICATION NUMBER: US 07/325,365
FILING DATE: 17-MAR-1990
                                                                                                                                                                                                                                                                                                                                                                                                                        CITLE OF INVENTION:
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                                                                                                    APPLICATION NUMBER: FILING DATE: 15-AU APPLICATION NUMBER:
                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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REGISTRATION . NUM
                                NAME:
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56; Conservative
                              Amy E.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rogers, Bruce
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NUMBER: 36,2
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                                                                                                                                     US 08/290,448
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 IMI-018CN2
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Pred. No. 0
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US-08-232-463-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 14,
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: APPLICANT:
                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                         SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                      CLASSIFICATION:
                                                        FILING DATE:
                                                                                                                                                                                                          COUNTRY: USA
ZIP: 22313-0299
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 APPLICATION NUMBER:
                                                                           APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                Alexandria
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                                                                                                                                                                                                                                                                                 1800 Diagonal Road,
                                                                                                                                                                                                                                                                                                                                                                           FALKNER,
                                                                                                                                                                                                                                                                                                                                                                                              SCHEIFLINGER,
                                                                                                                                                                                                                                                                                                                                                                                                                    DORNER, F.
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US/07/935,313
                                                                         US/08/232,463
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Pred. No. 0.00016;
D; Mismatches 171;
                                                                                                                                                                                                                                                                                 Suite
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RESULT 15
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                                                                                                                                                                                                                                                                                                     Patent No. 5676954
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                   Sequence 75,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 899149
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 7218 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                    APPLICANT: APPLICANT:
        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                   TITLE OF INVENTION: Allergenic Proteins From Ragweed and Uses NUMBER OF SEQUENCES: 93
                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: BENT, Stephen A. REGISTRATION NUMBER: 2
                                                                                                        COUNTRY:
                                                                                                                                                          STREET:
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                                                                                                                                                                       ADDRESSEE:
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                                                                                                                                       Boston
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                                                                                                                                                        60 State Street,
                                                                                                                                                                                                                                  Klapper, David G.
Rafnar, Thorunn
Kuo, Mei-chang
                                                                                                           USA
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Search completed: June Job time: 56 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: IM TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227.7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Amy E. Mandragouras
REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/529,951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 1
FILING DATE: May 29,
APPLICATION NUMBER: 1
FILING DATE: March 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
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                                                                                                          GGACNCNGTGTCCTCGTCCACATTGCCAATGGCG
                                                                                                                                            ATGATATGGTGAT-TAATTTGAATCAAGAGCTTGTCGTAAACAGCGACAAGACCATCGAT
                                                                                                                                                                                                                                                                                        TGGGGTGATGTCTACACGGTCACCAGCAATCTAGATGATGATGTTGCAAATCCAAAAGA 308
                                                                                                                                                                                                                                                                                                                           ACGGGGAATTTGTTCGTTGTGACAGACTCCGGGGACNATGATCCCCGGTGAATCCTCGCCC 544
                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGTGAAGCACTCAACATTATAGACAAGTGCTGGAGGGGGCAAAGCCGATTGGGAGAACA
                                                                        GGCCGAGGGGTGAAAGTTGAAATCATTAACGGAG
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                  2003, 13:35:16
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15, 1994
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Pred. No. 0.0011;
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Post-processing: Minimum Match 0%
Maximum Match 10
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806
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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
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110 US-09-966-881-16
110 US-09-966-881-17
110 US-09-966-881-17
110 US-09-966-881-17
110 US-09-938-842A-504
110 US-09-938-842A-504
110 US-09-938-842A-176
110 US-09-938-842A-176
110 US-09-938-842A-176
110 US-09-938-842A-809
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                                                    Sequence 13, Appl
Sequence 16, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 1004, Appl
Sequence 58, Appl
Sequence 439, App
Sequence 1766, Ap
Sequence 1766, Ap
Sequence 1766, Ap
Sequence 1809, Appl
Sequence 3663, Ap
Sequence 3, Appli
Sequence 3, Appli
Sequence 25, Appli
                                                                                                                                                                                                                                                                                                                                             Description
                     Sequence 25, Appl
Sequence 298, App
Sequence 27334, A
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Patent No. US20020120960A1
GENERAL INFORMATION:
APPLICANT: Seymour,
        INFORMATION FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC - DOS/MS-DOS
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/966,881
FILING DATE: 28-Sep-2001
CLASSIFICATION DATA:
APPLICATION NUMBER: US/09/242,860
FILING DATE: 29-Mar-1999
APPLICATION NUMBER: GS/09/242,860
FILING DATE: 29-Mar-1999
APPLICATION NUMBER: GB 9618862.8
FILING DATE: 10-SEP-1996
APPLICATION NUMBER: GB 9708366.1
FILING DATE: 25-APR-1997
APPLICATION NUMBER: GB 9708366.1
FILING DATE: 08-SEP-1997
APPLICATION NUMBER: DCT/GB97/02424
FILING DATE: 08-SEP-1997
APPLICATION NUMBER: DCT/GB97/02424
FILING DATE: 10-SEP-1997
APPLICATION NUMBER: DCT/GB97/02424
FILING DATE: 10-SEP-1997
APPLICATION NUMBER: SEP-1997
AFTORNEY/AGENT INFORMATION:
NAME: HOHENSCHUTZ, Liza D.
REGISTRATION NUMBER: SEP-50183/INT
                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 19850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Zeneca Ag
STREET: 1800 Concord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Medina Suarez, Rosybel
TITLE OF INVENTION: Genetic control Of Fruit Ripening
NUMBER OF SEQUENCES: 57
                                     TELECOMMUNICATION INFORMATION:
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                      TELEPHONE:
                                                        REFERENCE/DOCKET NUMBER: SEE 50183/UST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09966881
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Bird, Colin
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9 US-10-91-504-1554
10 US-9-764-869-1654
9 US-10-123-155-126
10 US-9-789-561-21
9 US-9-373-658-29
9 US-10-098-841-96
9 US-10-196-935A-1
9 US-10-196-935A-1
9 US-10-123-155-60
9 US-10-123-155-38
10 US-9-96-352-12835
9 US-10-184-644-346
9 US-10-184-634-346
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US-09-644-992A-4
0 US-09-878-574-4048
US-10-123-155-210
US-10-013-173-1
US-10-150-762-1
US-10-121-988-34
0 US-09-894-998-34
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Pike
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Sequence 1654, Ap
Sequence 1654, Ap
Sequence 126, App
Sequence 29, Appl
Sequence 29, Appl
Sequence 96, Appl
Sequence 97, Appl
Sequence 102, App
Sequence 102, App
Sequence 358, App
Sequence 358, App
Sequence 346, App
Sequence 346, App
Sequence 4, Appli
Sequence 4048, App
Sequence 210, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 34, Appli
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Sequence 35
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length:

Scoring table:

Title: Perfect score:

Run on:

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Score

Match Query

543.8 536 142.8 134.6 124.2 110.4 93.4

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Best Local Similarity
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LENGTH: 806 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: CDNA
IMMEDIATE SOURCE:
                                                                                                                         661
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               CGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCN 720
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                                                                 TCCCCAACNTCTTCCNTNGCCTCCNCTCCCCAATGCAACCCNCCGGGAATTCCTNGT 780
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ilarity 100.0%;
Conservative (
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; Pred. No. 1.7e-244;
0; Mismatches 0;
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RESULT 2

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US-09-966-881-16
; Sequence 16, Application U;
; Patent No. US20020120960A1
; GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/242,860
FILING DATE: 29-Mar-1999
APPLICATION NUMBER: GB 9618862.8
FILING DATE: 10-SEP-1996
APPLICATION NUMBER: GB 9708366.1
FILING DATE: 25-APR-1997
APPLICATION NUMBER: PCT/GB97/02424
FILING DATE: 08-SEP-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/966,881
FILING DATE: 28'-Sep-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Zeneca Ag
STREET: 1800 Concord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 727 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ
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CLONE: U-U89
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Genetic control Of Fruit Ripening NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION
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 CCTTGGAAGAGAGGGCTGTAACCCGGGCAGCAGCAGCCGCAGTCGACGACCCCGAGGAGG
                                     GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTT
                                                   GCGGAGCATCGCGGAGGAGCTTGAGAGAGGCCTCCGCGAACGCGACCAGCGCCGATGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hohenschutz, Liza D.
REGISTRATION NUMBER: 33,712
REFERENCE/DOCKET NUMBER: SEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
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Pred. No. 8.2e-168;
0; Mismatches 91;
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RESULT 3
US-09-966-881-18
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                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Pateatin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Zeneca Ag
STREET: 1800 Concord
                    FILING DATE: 08-SEP-1997 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Genetic NUMBER OF SEQUENCES: 57
                                                                                                                                                           PRIOR
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                                               APPLICATION NUMBER: US/09/242,860
FILING DATE: 29-Mar-1999
APPLICATION UNMBER: GB 9618862.8
FILING DATE: 10-SEP-1996
APPLICATION UNMBER: GB 9708366.1
FILING DATE: 25-APR-1997
APPLICATION NUMBER: PCT/GB97/02424
                                                                                                                                                       APPLICATION NUMBER: US/09/966,881
FILING DATE: 28-Sep-2001
CLASSIFICATION: CURROWN>
APPLICATION DATA:
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      Hohenschutz,
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RESULT 4
US-09-966-881-17
; Sequence 17, Application U
; Patent No. US20020120960A1
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INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: unknown MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION
                                                                                                             664 TGGACNCNGTGTCCTCGTCCACATTGCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 724 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                              NGGACCCNGTTTCCACTTCCNCATTNGC
                                                                                                                                                         C--ACNTGGANATCCCCCNCNAGGAAGAACTCCTTATGAACNGCTTTTTAAAAACATCGAT
                                                                                                                                                                         CNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGC--TTTAANACNATCGA
                                                                                                                                                                                                                  GGAACACTTANAT-NCCCGTCNTCCNNGAANTTTCCCCTCT---
                                                                                                                                                                                                                                              GGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACN
                                                                                                                                                                                                                                                                            CGGGGAATTTGTTCGTTGTGACAGACTCCGGGGACNATGATCCCCGTGAATCCTCGCCCG
                                                                                                                                                                                                                                                                                                                                         CAGAAAAAAGCTCGCTGACTGTGGCATTGGCCTTTTGGCCGCAACCCGATANGTGGCCGCGA
                                                                                                                                                                                                                                                                                                                                                       CAGAAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                   GTGCGGTTCAGGCAACCCGATCGACNACTGCTGGCGGTGCGACCCCGATTGGCATNTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCGACGGTCCTGACGACCATAATCAACAGCACGGCTCGAANATCTCTTGGTTATCTGTC
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REFERENCE/DOCKET NUMBER: SEE
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89.7%;
                    us/09966881
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Pred. No. 2.9e-165;
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                                                                            319
                    565 TCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAATCTCNCTC
                                                                                                                                                                                 445 TGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGTTCGTTGT
                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                     260 TGCGCCATCGGGTTCGGGAAGAACGCGATTTGGGGGCAGGGACGGCG-AGATATACGTGGT
                                                                                                                                                                                                                                  200 ATCGACGACTGCTGGCGGTGCGACCCTGACTGGGCTGACAACCGGCAGCGGCTCGCTGAC
                                                                                                                                                                                                                                                                                                                                                 325 ATAATCAACAGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCG
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276; Conserv
                                                                          GACCGACAGTGGCGACNACGA-CCCCGTCAATCCGAAAACGGGCACGCTCCGGTACGCCG
                                                                                                    GACAGACTCCGGGGACNATGATCCCCGTGAATCCTCGCCCGGGAACACTTANATACCCCG
                                                                                                                                                                                                                                                                      ATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAGAAAAAAGCTCGCTGAC
                                                                                                                                                                                                                                                                                                              AGAAGCTTGAACGTGTCGCGGCGGCGACTGGGCTACTTGTCATGCGGCACCGGCAATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 842 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Hohenschutz, Liza D.
REGISTRATION NUMBER: 33,712
REFERENCE/DOCKET NUMBER: SEE 50183/UST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/242,860 FILING DATE: 29-Mar-1999 APPLICATION NUMBER: GB 9618862.8 FILING DATE: 10-SEP-1996 APPLICATION NUMBER: GB 9708366.1 FILING DATE: 25-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/966,881 FILING DATE: 28-Sep-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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- AGGAGGAGCCGCTGTGGATCATCTTCAAGCGCGACATGGTCATCCAGCT -
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64.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO: 17:
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0; Mismatches 144; To
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                                                                       Matches 276;
                                                                                      Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (302) INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: SEE 50183/UST TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                         MOLECULE TYPE: CDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Medina-Suarez, Rosybel TITLE OF INVENTION: Genetic control Of Fruit Ripening NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 687 base pai
                                                                                                                                                                                                    IMMEDIATE SOURCE:
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                                  325 ATAATCAACAGCACGGCTCGCAGATCTCTTGGTTATCTGTCGTGCGGTTCAGGCAACCCG
140 AGAAGCTTGAACGTGTCGCGGCGGCGACTGGGCTACTTGTCATGCGGCACCGGCAATCCG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            625 NANGGAAGAACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCTCGTCCA 684
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                                                                                                                                                                                     CLONE:
                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                             TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: GB 9708366.1 FILING DATE: 25-APR-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Hohenschutz, Liza D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/966,881
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STREET: 1800 Concord
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                                                                       Conservative
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61.6%;
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                                                                                        Score 134.6; DB 1
Pred. No. 8.5e-34;
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Pike
                                                                       Mismatches
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                                                                       Indels
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                                                                       Gaps
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LENGTH: 1116
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APPLICANT: Wang, Xun
APPLICANT: Zhu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
FILE REFERENCE: SCRIP1300-3
CURRENT APPLICATION NUMBER: US/09/938,842A
CURRENT FILING DATE: 2001-08-24
PRIOR APPLICATION NUMBER: US 60/227,866
PRIOR FILING DATE: 2000-08-24
PRIOR APPLICATION NUMBER: US 60/264,647
PRIOR APPLICATION NUMBER: US 60/264,647
PRIOR FILING DATE: 2001-01-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/300,111 PRIOR FILING DATE: 2001-06-22
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APPLICANT: Kreps, Joel
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                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Arabidopsis thaliana
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                                           GCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGCGACGGGGAATTTGTT 498
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                     GCGGATTGCGGTATCGGATTTGGAAGAAACGCGATCGGTGGTCGTGATGGACGA-TTCTA
                                                                                               AACCCTATCGACGATTGTTGGCGATGTGACCCCAATTGGCACAAGAACCGTAAACGCCTA
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60.2%;
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Pred. No. 2.7e-30;
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                                                                                                                                                                                                                                                                                       DB 9;
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US-09-938-842A-58
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LENGTH: 1215
TYPE: DNA
ORGANISM: Arabidopsis thaliana
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Best Local
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APPLICANT: Zhu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
TITLE OF INVENTION: SAME, AND METHODS OF USE
FILE REFERENCE: SCRIP1300-3
CURRENT APPLICATION NUMBER: US/09/938,842A
CURRENT FILING DATE: 2001-08-24
PRIOR APPLICATION NUMBER: US 60/227,866
PRIOR FILING DATE: 2000-08-24
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-01-16
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PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 5379
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APPLICANT: Kreps, Joel
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CAATTTCNTCCCCAACNTCTTCTTCCNTNGCCTCCNCTCCCCAAT 757
                                       AAGACCATCGATGGCCGTGGTGCTTCCGTACATCTCTGGTGGGCCCTTGTATAACGATC
                                                                           AANACNATCGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANC
                                                                                                                 TCATCTTCCAACGAGACATGACGATTCAGCTCAAA-GAAGAGCTAATCATGAACTCATTC
                                                                                                                                                    TCCCCTTTAAACNCNAANTGGAAATCTCNCTCNANGGAAGAACTCNTTATGAACAGCTTT
                                                                                                                                                                                        GAATCCTCGCCCGGGAACACTTANATACCCCGTCNTCCAANGAAGTTGCCCCCCTCTGGGA
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Pred. No. 9.1e-26;
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TITLE OF INVENTION: Expressed Sequences of Arabidopsis
TITLE OF INVENTION: thaliana
FILE REFERENCE: 2027 (PARA-016PRV)
CURRENT APPLICATION NUMBER: US/09/770,444
CURRENT FILING DATE: 2001-01-26
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LOCATION: (1)...(460)
OTHER INFORMATION: n =
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                                                                                                                                                                                                                                                        146
                                                                                                                                                                                                                                                                                                                                                                                                                                182;
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                                                                                                                                                                                                                                                                                                                                                                                         268 GCAGCAGAAGCCGCAGTCGACGACCCCGAGGAGGTTGCTTCGACGGTCCTGATGACCATA 327
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82; Conservative
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                                                     TGACCCAAGAGACGACAAT - NNGGTTAACCCTAGACCGGGGGACTTTACGTCACGCCGTGA
                                                                               AGACTCCGGGGACNATGATCCCCGTGAATCCTCGCCCGGGGAACACTTANATACCCCCGTCN
                                                                                                                               GGTATCGGATTTGGAAGAAACGCGATCGGTGGTCGTGATGGACGA-TTCTACGTAGTCAC
                                                                                                                                                                 GGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGTTCGTTGTGAC
                                                                                                                                                                                                      GACGATTGTTGGCGATGTGACCCCCAATTGGCACAAGAACCGTAAACGCCTAGCGGATTGC
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Pameaka, Joshua G.
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Slader, Ted
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Woessner, Jeffrey P.
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                                                                                                                                                                                                                                                                                                                                                                                                                            Score 93.4; DB 10;
Pred. No. 2.3e-20;
0; Mismatches 121;
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; OTHER INFORMATION: n =
US-09-924-035A-174
                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-09-938-842A-1766
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                                                                                                                                                                                                                                                                             Sequence 1766, Application Patent No. US20020160378A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                              CURRENT APPLICATION NUMBER: US/09/938,842A
CURRENT FILING DATE: 2001-08-24
PRIOR APPLICATION NUMBER: US 60/227,866
PRIOR FILING DATE: 2000-08-24
PRIOR APPLICATION NUMBER: US 60/264,647
PRIOR FILING DATE: 2001-01-16
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APPLICANT:
APPLICANT:
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                                                                                                                                              TITLE OF INVENTION: STRESS-REGULATED GENES OF TITLE OF INVENTION: SAME, AND METHODS OF USE FILE REFERENCE: SCRIP1300-3
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TITLE OF INVENTION: Expressed Sequences of Arabidopsis
TITLE OF INVENTION: thaliana
                                                                                                                                                                                                                                       APPLICANT: Harper, Jeff APPLICANT: Kreps, Joel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/148,784 PRIOR FILING DATE: 1999-08-13 NUMBER OF SEQ ID NOS: 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/924,035A CURRENT FILING DATE: 2000-08-11
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NAME/KEY: misc_feature
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TYPE: DNA
ORGANISM: Arabidopsis thaliana
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APPLICATION NUMBER: US 60/300,111 FILING DATE: 2001-06-22
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                                                                                                                                                                                                  Wang, Xun
Zhu, Tong
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Pred. No.
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237

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; NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No.;
NAME/KEY: unsure
LOCATION: 2, 63, 118, 122, 186, 1
OTHER INFORMATION: a, t, c, g, or
US-09-923-876-4484
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LENGTH: 1629
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Patent No. US20020013958A1
GENERAL INFORMATION:
  Query Match
Best Local Similarity
Matches 122; Conserv
                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 6332
SOFTWARE: PERL Program
SEQ ID NO 4484
LENGTH: 277
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CURRENT FILING DATE: 2001-08-06
PRIOR APPLICATION NUMBER: 09/298,329
PRIOR FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lalgudi, Raghunath V.
APPLICANT: Kamiqaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLECTIDES AND POLYPEPTIDES DERIVED
FILE REFERENCE: PL-0012-1 CON
CHEDENER CONTROL OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERT
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ORGANISM: Zea mays
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGATGGACNCNGTGTCCTCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCN 720
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     Conservative
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  Score 68.4; DB 10;
Pred. No. 2.8e-12;
0; Mismatches 77;
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Pred. No. 6.3e-14;
                                                                                                                                       or other
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                                                                                                                                                                                                                          US20020013958A1 700455117H1
                                                                                                                                                                   267,
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US-09-938-842A-809
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LENGTH: 1185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 809, Application US/09938842A Patent No. US20020160378A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Wang, Xun
APPLICANT: Zhu, Tong
TITLE OF INVENTION: STRESS-REGULATED GENES OF
TITLE OF INVENTION: SAME, AND METHODS OF USE
FILE REFERENCE: SCRIP1300-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Arabidopsis thaliana
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mes 187; Conserv
  429
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                                                                                                                                                                                                                                                                                                                                                                                                                            139 AATCCGGTGGACTCCTGTTGGCGGCTCAAGTCTGACTGGGCTGCCAATCGTAAAGACCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    379 AACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCAACAGAAAAAAGCTC
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                                          CGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAA 715
                                                                                                      TCNCTCNANGGAAGACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCCT
                                                                                                                                                                                                                                                      CGTTGTCACAAACCCTTACGACAATGCACA----GAATCCTCAACCAGGTTCTTTGCGGT
                                                                                                                                                                                                                                                                                                                                        GCGGATTGCGTGGATTCGGTT-CATCTACCTTGGGCGGAAAGAAAGCTAATTTATA
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  AGTAGAAATCGCATACGGACCATGCATCACGATACAA
                                                                                                                                                                      ACGGCGTGATCCAAGCCA----AACCATTGTGGATCACTTTCGCTAAGGATATGGTCATA
                                                                                                                                                                                                            ACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAATC
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Pred. No. 1e-1
0; Mismatches
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465
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RESULT 14
US-09-966-881-15
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; TYPE: DNA
; ORGANISM: Glycine max
; OTHER INFORMATION: Clone ID: LIB3028-007-Q1-B1-E8
US-09-878-574-3663
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US-09-878-574-3663
                                                                                                                                                                                                                                                                                                                Sequence 15, Application US/09966881 Patent No. US20020120960A1 GENERAL INFORMATION:
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Best Local
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PRIOR FILING DATE: 1999-66-14
NUMBER OF SEQ ID NOS: 15775
SEQ ID NO 3663
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APPLICANT: Thompson, Michael D.
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(15401)B
CURRENT APPLICATION NUMBER: US/09/878,574
CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Byrum, Joseph R. APPLICANT: La Rosa, Thomas APPLICANT: Thompson, Micha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
          ZIP: 19850
COMPUTER READABLE FORM:
MEDIUM TYPE: Flopp
                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Zeneca Ag
STREET: 1800 Concord
                                                                                                                                                                                                         Medina-Suarez, Rosybel TITLE OF INVENTION: Genetic contr NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     678 TCGTCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCNTCCCCCAACNTCTTCTTC 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          155 T-GTCGTCACCGATAATTCCGATGACGA-CATGGTGAACCCTAAGCCGGGAACTATCCGT 212
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189; Conservative
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Similarity 52.5%;
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US20020110548A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGTGCAATTTAGGGGCCGGTGCTGGCCTCACCATTCAGTTCGTGAACAACGTTATTATCC 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGTTT-GAGGCAAGAGCTGATGATTTCCTCCGACAAGACCATCGATGGTCGTGGCGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCNCTCNANGGAAGAACTCNTTATGAACAGCTTTAANACNATCGATGGACNCNGTGTCC 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACGCTGTCACCCAAAAAAGG----CCCCTTGTGGATCATCTTCGGACACAGCATGATCAT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACCCCGTCNTCCAANGAAGTTGCCCCCTCTGGGATCCCCTTTAAACNCNAANTGGAAAT 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGTTGTGACAGACTCCGGGGACNATGATCCCCGTGAATCCTCGCCCGGGAACACTTANA 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCAAGTGCGGCAAAGGGTTCGGAAGACGGGCCACCGGCGGGCTCGGTGGTCCCATCTA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCGACGGGGAATTTGT 497
                                                                COUNTRY: UZIP: 19850
                                                                                                         STATE: DE
                                                                                                                        CITY: Wilmington
                                                                                                                                                                                                                                                                                           Seymour, Graham
                                                                                                                                                                                                                                                                          Bird, Colin
                                                                                   USA
    PE: Floppy disk
IBM PC compati
compatible
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                                                                                                                                               Products Inc
Pike
                                                                                                                                                                                                                               control Of Fruit Ripening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 388;
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RESULT 15
US-09-828-505-3
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                                                                                                              SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/09828505 Patent No. US20020142978A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                 NUMBER OF SEQ ID NOS: 4 SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/195,890 PRIOR FILING DATE: 2000-04-07
                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/828,505
CURRENT FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                     APPLICANT: Nguyen, Minh-Duc
TITLE OF INVENTION: Synergistic Improvements
TITLE OF INVENTION: Polynucleotide Vaccines
                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                       FILE REFERENCE: 6510-203
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Raz,
OTHER INFORMATION: hssHADelta36Ambal nucleic acid sequence
                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (302) 886-1699 INFORMATION FOR SEQ ID NO: 15:
                       FEATURE:
                                                                   TYPE: DNA
                                                                                     LENGTH: 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: unknown MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 681 TCCACATTGCCAATGGCGCCTGCNTCACCANCCAATTTCNTCCCCAACNTCTTCTTCCNT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120 CACTATGG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        799 ATGGATNG 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              741 NGCCTCCNCTCCCC--AATGCAACCCNCCGGGAATTCCTNGTCCCCNCTCCCCTTCTCCT 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TCCACATTGCCAATGGCGCCTGCATCACCATNC-AGTACATCACCAACGTCATCCAT 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCTCCACATCCACGACTGCAAGCCCACCGGGAATGCCATGGTCCGCAGCTCTCCTTCT 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/966,881 FILING DATE: 28-Sep-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/GB97/02424 FILING DATE: 08-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 29-Mar-1999
APPLICATION NUMBER: GB 9618862.8
FILING DATE: 10-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 33,712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hohenschutz,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: GB 9708366.1 FILING DATE: 25-APR-1997
                                                                                                                                                                                                                                                                                                                                                        Takabayashi, Kenji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 741 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/242,860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                 Eyal
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Pred. No. 0.00056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEE 50183/UST
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	Search completed: June 19, 2003, 13:34:04 Job time : 124 secs	Qy 485 ACGGGGAATTT 495                   Db 194 ACGGAGACATT 204	Qy 425 ACAGAAAAAAGCTCGCTGACTGCGGCATTGGCTTTGGACGCAACGCNATANGTGGCCGCG 484	Qy 365 CGTGCGGTTCAGGCAACCCGATCGACGACTGCTGGCGGTGCGACCCTGATTGGCATGTCA 424	Query Match 5.1%; Score 41; DB 10; Lei Best Local Similarity 56.5%; Pred. No. 0.0048; Matches 74; Conservative 0; Mismatches 57;	US-09-828-505-3
			AACGCNATANGTGGCCGCG	GACCCTGATTGGCATGTCA             AAGGCAGATTGGGCCGAAA	Length 1137; Indels 0; Gaps	
,			484 193	4 <sup>2</sup> 4 133	0;	

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